

*GENERAL  
CALENDAR  
68-69*

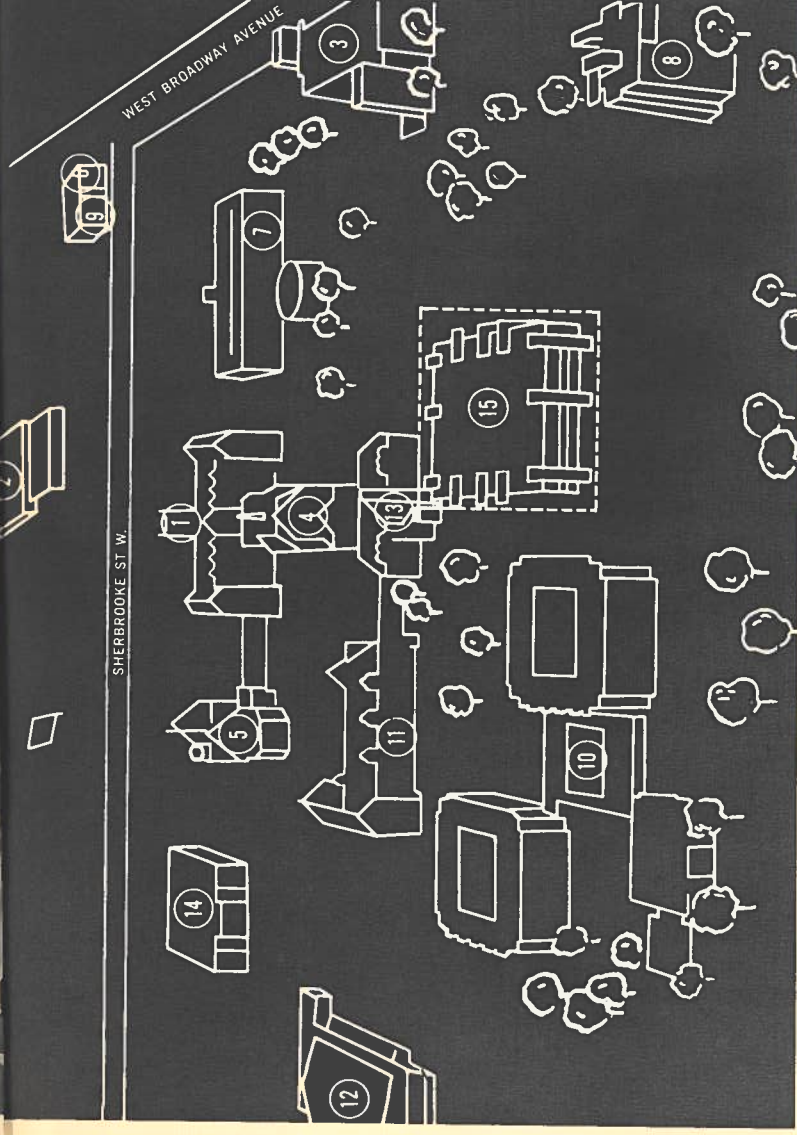
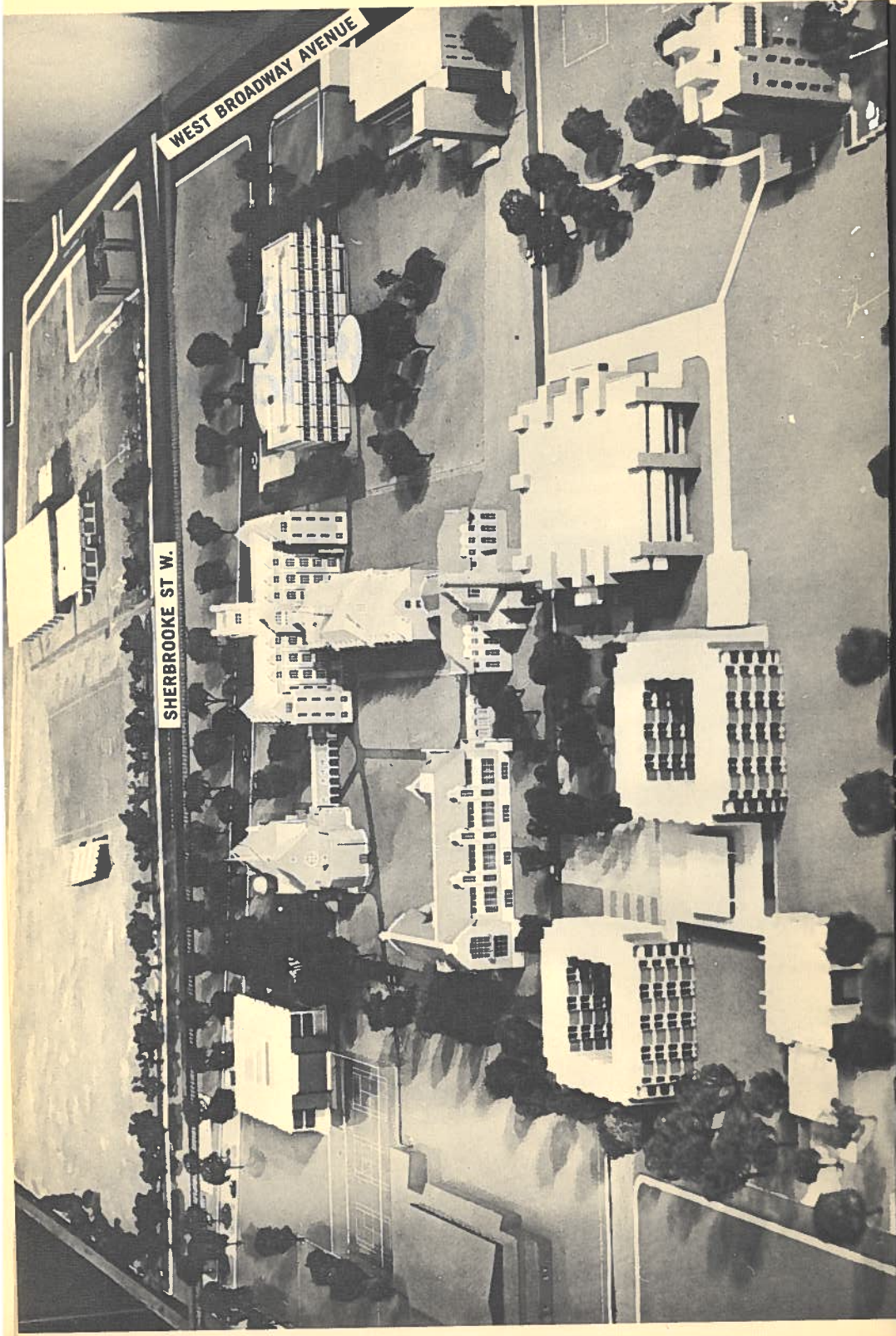


**Loyola**

OF  
MONTREAL

**Loyola  
College  
calendar**





- 1 Administration Building
- 2 Athletic Centre
- 3 W. X. Bryan Classroom Building
- 4 Central Building
- 5 Chapel
- 6 Cloran Building
- 7 Drummond Science Building
- 8 Faculty Residence
- 9 Hackett Building
- 10 Hingston Hall (Men's Residence)
- 11 Junior Building
- 12 Physical Services Building
- 13 Refectory Building
- 14 Georges P. Vanier Library
- 15 Proposed Student Union Building

Not shown on photo of campus model:  
Centennial Building and Langley Hall  
(Women's Residence).

## LOYOLA COLLEGE CAMPUS

7141 SHERBROOKE ST. WEST, MONTREAL, TEL. 482-0320



IT IS MY PRAYER THAT YOUR LOVE MAY GROW  
RICHER AND RICHER IN KNOWLEDGE AND  
PERFECT INSIGHT SO THAT YOU MAY HAVE A  
SENSE OF WHAT IS VITAL AND MAY BE MEN OF  
TRANSPARENT CHARACTER AND BLAMELESS LIFE.

St. Paul to Philippians 1, 9 & 10

*Ad Maiorem Dei Gloriam*



**1 9 6 8 - 1 9 6 9**

7141 SHERBROOKE ST. WEST  
MONTREAL, TEL. 482-0320

ARTS COMMERCE ENGINEERING SCIENCE



## table of contents

PAGE	9	ACADEMIC CALENDAR
	13	BOARD OF TRUSTEES
	13	BOARD OF GOVERNORS
	14	MEMBERS OF THE SENATE
	15	OFFICERS OF ADMINISTRATION
	15	ADMINISTRATIVE OFFICES
	17	FACULTY LIST
	32	THE FACULTY COMMITTEES
	36	HISTORY OF LOYOLA COLLEGE
	38	AIM
	39	ADMISSIONS
	42	ACADEMIC COUNSELLING
	42	GUIDANCE CENTRE
	43	ACADEMIC REGULATIONS
	48	FACULTY OF ARTS
	53	FACULTY OF COMMERCE
	55	FACULTY OF ENGINEERING
	55	FACULTY OF SCIENCE
	60	ACCOUNTANCY
	62	CENTRE FOR AFRICAN STUDIES
	64	BIOLOGY
	68	BUSINESS ADMINISTRATION
	71	CHEMISTRY
	76	CLASSICS
	80	COMMUNICATION ARTS

87	COMPUTING CENTRE
88	ECONOMICS
92	ENGINEERING
110	ENGLISH
122	FRENCH STUDIES
129	GEOTECHNICAL SCIENCE
135	HISTORY
143	LINGUISTIC AND MODERN LANGUAGES
149	MATHEMATICS
158	PHILOSOPHY
164	PHYSICS
170	POLITICAL SCIENCE
176	PSYCHOLOGY
180	SOCIOLOGY
188	THEOLOGY
198	SCHOLARSHIPS, BURSARIES AND AWARDS
209	DIVISION OF STUDENT SERVICES
213	PHYSICAL EDUCATION AND ATHLETICS
214	RELIGIOUS ACTIVITIES
216	STUDENT GOVERNMENT
218	STUDENT EXTRACURRICULAR ACTIVITIES
220	UNIVERSITY OFFICER TRAINING UNITS
223	FEES
224	WITHDRAWALS AND ADJUSTMENTS
227	RESIDENCES
230	FACILITIES
232	INCOME AND NEEDS OF THE COLLEGE
234	LOYOLA ALUMNI ASSOCIATION

# ACADEMIC CALENDAR 1968-1969

## SUMMER

1 9 6 8

### MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

### JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## WINTER

1 9 6 8 - 9

### SEPTEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

### OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

### DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

### JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

### MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

# ACADEMIC CALENDAR 1968-69 1968

## Wednesday and Thursday, September 4 and 5

Placement tests for Freshmen from the Montreal area :  
9:30 A.M.

## Monday, September 9

Payment of fees for Commerce II, III, and IV students : 9:00 A.M. to 12:00 Noon.

Registration of Commerce II, III and IV students :  
1:00 P.M. to 4:00 P.M.

Placement tests for Freshmen from outside the Montreal area : 9:30 A.M.

## Tuesday, September 10

Payment of fees for Arts II students : 9:00 A.M. to 12:00 Noon.

Registration of Arts II students : 1:00 P.M. to 4:00 P.M.

Freshman Orientation : 9:30 A.M.

## Wednesday, September 11

Payment of fees for Arts III and IV students : 9:00 A.M. to 12:00 Noon.

Registration of Arts III and IV students : 1:00 P.M. to 4:00 P.M.

Freshman Orientation : 9:30 A.M.

## Thursday, September 12

Payment of fees for Engineering II, III, and IV and Science II, III and IV students : 9:00 A.M. to 12:00 Noon.

Registration of Engineering II, III and IV and Science II, III, and IV students : 1:00 P.M. to 4:00 P.M.

Freshman Orientation : 9:30 A.M.



**Friday, September 13**

Payment of fees for Commerce I, Engineering I and Science I students : 9:00 A.M. to 12:00 Noon.

Registration of Engineering I students : 1:00 P.M.

Registration of Commerce I students : 1:30 P.M.

Registration of Science I students : 2:30 P.M.

**Saturday, September 14**

Payment of fees for Arts I students : 9:00 A.M. to 12:00 Noon.

Registration of Arts I students whose family name begins with A through L: 1:00 P.M.

Registration of Arts I students whose family name begins with M through Z : 2:30 P.M.

**Monday, September 16**

Lectures begin

President's address to Upperclass students:  
11:00 A.M.

**Tuesday, September 17**

Solemn Mass for the opening of the Academic Year.  
— 12:00 Noon.

**Friday, September 20**

Last day for late registration.

**Friday, September 27**

Last day for course changes or deletions.

**Monday, October 14**

Thanksgiving Day — Full holiday.

**Tuesday, November 5**

Fall Convocation.

**Monday, November 11**

1:00 P.M. — Remembrance Day Service and Mass  
for deceased staff members and students.

**Friday, December 13**

First Term lectures end.

**Saturday, December 14**

Mid-Year Freshman tests begin.

Mid-Year final examinations begin.

**1969****Monday, January 6**

Second term lectures begin.

**Friday, February 7**

Father President's Holiday — Full holiday

**Wednesday, March 12**

Celebration of the Feast of St. Ignatius Loyola.

**Wednesday, April 2**

Last day of Lectures, before easter recess.

**Tuesday, April 8**

Lectures resume.

**Friday, April 11**

Last day of lectures.

**Monday, April 14**

Final examinations begin.

**Friday, May 16**

Last day for submitting documents needed to justify  
aegrotat standing and special examinations.

**Saturday, May 31**

Convocation.

**Monday, June 2**

Last day for making applications to enter Loyola.

**Monday, June 16**

Last day for making appeal to have an examination paper reviewed.

**Tuesday, July 15**

Last day for returning preregistration forms.

Last day for making appeal to repeat year.

**BOARD OF TRUSTEES**

Very Rev. Patrick G. Malone, S.J., B.A., Ph.L., M.A., S.T.L., President

Very Rev. Cecil C. Ryan, S.J., B.A., S.T.L., Superior

Rev. Cyril B. O'Keefe, S.J., B.A., M.A., S.T.L., Ph.D.

Rev. Robert J. MacDougall, S.J., B.A., S.T.L., Treasurer.

Rev. J. Aloysius Graham, S.J., B.A., M.A., S.T.L., Secretary

Rev. John S. O'Neill, S.J., B.A., B.Paed., M.Sc.

Rev. Hugh J. MacPhee, S.J., B.A., M.A., S.T.L.

Mr. Timothy P. Slattery, Q.C., M.B.E., Legal Adviser.

**BOARD OF GOVERNORS**

The Hon. Mr. Justice Paul C. Casey, Chairman

Very Rev. Patrick G. Malone, S.J., Vice-Chairman

R. P. Duder, Secretary to the Board

Murray G. Ballantyne

Stanley D. Clarke

John H. Coleman

F. Ronald Graham, Jr.

H.J. Hemens, Q.C.

Frederick R. Kearns

Edward F. King

C. S. Malone

John McIlhone

B. W. McNaughton

Rev. Robert J. MacDougall, S.J.

Herbert J. O'Connell

Rev. Cyril B. O'Keefe, S.J.

J. Harry Ranahan

Timothy P. Slattery, Q.C.

A. K. Velan

Charles H. Wayland

William H. Wilson

J. M. Wynn



## MEMBERS OF THE SENATE

### Ex-officio

Fr. P. G. Malone, S.J., (Chairman)  
 Mr. J. W. Noonan, (Secretary)  
 Fr. C. B. O'Keefe, S.J.  
 Mr. L. Bessner  
 Fr. A. Graham, S.J.  
 Mr. G. Joly  
 Mr. D. J. Potvin  
 Fr. G. MacGuigan, S.J.  
 Fr. G. McDonough, S.J.

### Appointed Term Ends

Mr. J. Doyle April 30, 1969  
 Fr. J. E. O'Brien, S.J. April 30, 1971

### Elected — Arts

Dr. F. G. Adams April 30, 1971  
 Dr. M. Andersen April 30, 1971  
 Mr. J. T. Copp April 30, 1971  
 Mr. R. Czerny — student April 30, 1969  
 Dr. R. Hinners April 30, 1971  
 Mr. A. Lallier April 30, 1969  
 Dr. A. Lauziere April 30, 1969  
 Dr. D. Savage April 30, 1970  
 Mr. R. Wareham April 30, 1970

### Elected — Science

Dr. C. E. Eappen April 30, 1969  
 Dr. T. Nogrady April 30, 1970  
 Mr. G. O'Connell — student April 30, 1969  
 Fr. E. O'Connor April 30, 1971  
 Mr. A. Prillo April 30, 1970

### Elected — Commerce

Mr. P. Fournier — student April 30, 1969  
 Mr. J. R. Hanrahan April 30, 1971

### Elected — Engineering

Mr. K. I. Krakow April 30, 1969

## OFFICERS OF ADMINISTRATION

Very Rev. Patrick G. Malone, S.J., B.A., Ph.L., M.A.,  
 S.T.L., President

R. P. Duder B.A., M.A., Assistant to the President

Rev. C. B. O'Keefe, S.J., B.A., M.A., S.T.L., Ph.D.,  
 Academic Vice President

W. J. Cozens, B.A., Director of Freshmen

Rev. G. J. MacGuigan, S.J., B.A., M.A., S.T.L., Dean  
 of Arts

Dr. M. Blonar, B.A., B.Paed., M.A., Ph.D., Assistant  
 Dean of Arts

Rev. J. A. Graham, S.J., B.A., M.A., S.T.L., Dean of  
 Science

M. L. Bessner, B.Comm., L.A., C.A., Dean of Commerce

G. W. Joly, B.A., B.Eng., M.Eng., Dean of Engineering

D. J. Potvin, B.A., Director of Evening Division

Rev. R. J. MacDougall, S.J., B.A., S.T.L., Treasurer

Rev. J. G. McDonough, S.J., B.A., M.A., Dean of Stu-  
 dents

J. W. Noonan, B.Sc., Registrar

Major J. P. Hale, Supervisor Guidance Centre

G. Trowsdale, B.A., (Lib.Sc.), Lib.Cert., Chief Librarian

A. J. Ferrari, B.Comm., C.A., R.I.A., Comptroller

J. S. Dorrance, B.A., M.A., Director of Development

## ADMINISTRATIVE OFFICES

### Registrar :

J. W. Noonan, B.Sc., Registrar

T. A. Murphy, B.Comm., Associate Registrar

J. R. Britt, B.Comm., Assistant Registrar

Miss E. Gibbons, Assistant Registrar (Records)

M. J. Allen, B.A., Assistant to the Registrar

D. A. Mullington, B.A., Assistant to the Registrar

### Finance and Business :

Rev. Robert J. MacDougall, S.J., B.A., S.T.L., Treasurer

A. J. Ferrari, B.Comm., C.A., R.I.A., Comptroller

C. Villemaire, C.G.A., Assistant to Comptroller

A. St. Amour, Bursar  
 M. E. McMullan, B.A., Director of Personnel  
 R. J. Lennen, Director of Purchases  
 L. Price, Director of Food Services  
 P. Gore, Manager of Bookstore

#### Dean of Students :

Rev. J. G. McDonough, S.J., B.A., M.A., Dean of Students  
 R. Shearer, B.A., M.A., Dean of Men  
 G. V. Uihlein, Jr., B.Sc., M.Sc., Assistant Dean of Men  
 Miss A. McDonald, B.A., M.A., Dean of Women  
 R. J. Eustace, B.A., Director of Men's Housing  
 P. Lefebvre, Director of Financial Aid  
 E. Steynor, B.A., Student Placement Officer  
 E. F. Enos, B.Sc., M.Ed., Director of Physical Education  
 Rev. J. S. O'Neill, S.J., B.A., B.Paed., M.Sc., Student Counsellor  
 A. Powell, M.D., Director of Medical Services  
 Miss M. Fraser, R.N., Nurse

#### Development :

J. S. Dorrance, B.A., M.A., Director of Development  
 Rev. C.C. Ryan, S.J., B.A., S.T.L., Associate Director of Development  
 B. H. McCallum, B.A., Director of Alumni Affairs

#### Libraries :

G. Trowsdale, B.A., (Lib.Sc), Lib. Cert., Chief Librarian  
 J. Princz, B.A., M.A., Deputy Librarian

#### Physical Plant :

B. Kelly, B.A., Director of Physical Plant  
 L. Provost, Maintenance Superintendent  
 G. Leduc, Manager of Auditoria

#### Loyola College Faculty Association

Pres.: J. R. Hanrahan  
 Vice-Pres.: J. S. Tascone  
 Sec.: G. W. Andersen  
 Treas.: L. J. Boyle

## FACULTY LIST —

ADAMS, F.G.W., B.A. (Toronto), M.A. (Toronto), Ph.D. (Chicago), Associate Professor and Chairman, Department of History.

ALVI, S., B.A. (Karachi), M.A. (Karachi), Ph.D. (Colorado), Associate Professor and Chairman, Department of Economics.

ANDERSEN, G.W., B.A. (Horsens Stateskole, Denmark), B.Ed. (Denmark), M.A. (Montreal), Assistant Professor, Department of French Studies.

ANDERSEN, Mrs. M., Certificat d'Etudes Littéraires (Paris), Diplôme d'Etudes Supérieures (Free University of West Berlin), Ph.D. (Montreal), Associate Professor, Department of French Studies.

APCZYNSKI, J.V., B.A. (St. John's College, Arkansas), Sessional Lecturer, Department of Theology.

BADIN, J.C., B.A. (U. of Grenoble), L. ès L. (Grenoble), C.A.P.E.S. (Sorbonne) Assistant Professor, Dept. French Studies.

BAGCHI, S.N., B.Sc. (Calcutta), M.Sc. (Calcutta), D.Sc. (Calcutta), Professor, Department of Physics.

BANNISTER, W., B.A. (University of Western Ontario), M.A. (Western Ontario), Lecturer, Department of Business Administration.

BARTHO, A., Diplômé Ecole Normale Supérieure de Saint-Cloud, Instructor, Department of French Studies.

BASHCONJI, G., B.Sc. (University of London), Lecturer, Department of Mathematics.

BAUER, J.H., B.A. (Sir George Williams), M.A. (Manitoba), Ph.D. (Manitoba), Assistant Professor, Department of Psychology.

BEDARD, W., O.F.M., B.A. (Montreal), S.T.D. (Catholic University of America), Associate Professor, Department of Theology.

BENJAMIN, I., B.Sc. (Rostov), D.Sc. (Prague), Associate Professor, Department of Mathematics.



BERETTA, G.W., B.A. (Western Ontario), L.Ph. (Louvain), Lecturer, Department of Philosophy.

BESSNER, L.M., B.Comm. (McGill), L.A. (McGill), C.A., Associate Professor and Dean of Commerce.

BLACKLOCK, J.L., B.A. (University of Western Ontario), Instructor, Department of English.

BLANAR, M., B.A. (Montreal), B. Paed. (Montreal), M.A. (Montreal), Ph.D. (Montreal), Associate Professor, Department of English. Assistant Dean of Arts.

BOUCHER, J.-P., B. ès A. (Montreal), M.A. (McGill), Lecturer, Department of French Studies.

BOYLE, L.J., B.A. (University of Montreal), B.Comm. (Montreal), M.A. (McGill), Assistant Professor, Department of Business Administration.

BRASH, Miss M.H., B.A. (Bishop's), Instructor, Department of English.

BRODY, B., B.A. (Sir George Williams), M.A. (McGill), Asst. Prof., Department of Economics.

BROES, A., B.A. (Manhattan College), M.A. (Columbia), Assistant Professor, Department of English.

BROWN, D., A.B. (Xavier University), Ph.D. (Tuebingen), Assistant Professor, Department of Classics.

BROWNE, W.J., S.J., B.A. (Montreal), S.T.L. (Regis, Toronto), S.T.D. (Gregorian), Assistant Professor, Department of Theology.

BUELL, J., B.A. (Montreal), M.A. (Montreal), Ph.D. (Montreal), Professor, Department of Communication Arts.

CASEY, P., B.A. (University of Montreal), B.C.L. (McGill), Sessional Lecturer, Commercial Law.

CATRY, Miss M., Certificat d'Etudes Littéraire (Lille), Certificat de Pédagogie (Lille), M.A. (Mount Holyoke), Lecturer, Department of French Studies.

CHARPENTIER, G., B. ès A. (Laval), L. ès L. (Laval), Lecturer, Department of French Studies.

CHOWN, E.H., B.Sc. (Queen's), M.A.Sc. (British Columbia), Ph.D. (Johns Hopkins), Assistant Professor, Department of Geotechnical Science.

COOLIDGE, R.T., B.A. (Harvard), M.A. (Berkeley), B. Litt. (Oxford), Associate Professor, Department of History.

COPP, J.T., B.A. (Sir George Williams), M.A. (McGill), Assistant Professor, Department of History.

COYTE, R.C., B.A. (Oxford), Diploma in Political Science and Economics (Oxford), M.A. (Oxford), Assistant Professor, Department of Political Science.

CRONIN, R.T., S.J., B.A. (Montreal), M.Sc. (Fordham), Ph.D. (Fordham), Assistant Professor, Department of Biology.

DAUDERIS, H. J., B.Comm. (University of Montreal), C.A., Lecturer, Department of Accountancy.

DAUVERGNE, J., B.B.A. (Missouri), M.A. (Fletcher School of Law), M.A.L.D. (Fletcher), Assistant Professor, Dept. of Economics.

DAVIES, P., B.A. (Northern Illinois), M.A. (Illinois), Ph.D. (Yale), Assistant Professor, Dept. of English.

DeTAKACSY, N.G., B.Sc. (Montreal), M.Sc. (McGill), Ph.D. (McGill), Assistant Professor, Dept. of Physics.

DHINDSA, K.S., B.Sc. (Panjab), M.Sc. (Panjab), Assistant Professor, Dept. of Biology.

DOTSON, J.E., B.A. (U. of Oklahoma), M.A. (Nebraska), Asst. Prof., Dept. History.

DOUGHTY, M., B.Sc. (London), Ph.D. (London), Assistant Prof., Department of Chemistry.

DOYLE, J.P., B.A. (Montreal), B. Paed. (Montreal), M.A. (Montreal), Associate Professor and Chairman of the Department of Philosophy.

DRUMMOND, S., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L., Ph.D. (Toronto), Professor and Chairman, Department of Biology.

EAPPEN, C.E., B.Sc. (Travancore), M.Sc. (Bombay), Ph.D. (McGill), Associate Professor and Chairman, Dept. of Physics.

EGAN, E., B.A. (Manhattan College), M.A. (Fordham), Assistant Professor, Dept. of Philosophy.

EKLER, K., B.Sc. (McGill), Ph.D. (McGill), Associate Prof., Department of Chemistry.

FAIERMAN, M., B.Eng. (McGill), B.Sc., (University of London), M.A. (University of Toronto), Ph.D. (Toronto), Assistant Professor, Department of Mathematics.

FAINSILBER, H., B.Sc. (Sir George Williams), Lecturer, Dept. of Mathematics.

FAULKNER, T.C., A.B. (Hope College), M.A. (Miami University at Ohio), Lecturer, Department of English.

FORD, K., B.Sc. (University of Montreal), M.Sc. (University of Connecticut), Lecturer, Department of Physics.

GAGNON, C.F., Artist in residence and Associate Professor, Department of Communication Arts.

GARNET, P., B.A. (Sheffield), M.A. (Sheffield), Lecturer, Department of Theology.

GERVAIS, M., S.J., B.A. (Montreal), L.Ph. (Immaculate Conception), M.F.A. (Catholic U. of America), M.A. (St. Mary's), Assistant Professor, Department of Communication Arts.

GOLD, Mrs. L., B.A. (Sir George Williams), M.A. (McGill), Instructor, Department of English.

GOLDMAN, C., B.Eng. (McGill), M.Eng. (McGill), Associate Professor, Department of Engineering.

GOVIL, N.K., B.Sc. (Agra University, India), M.Sc. (Aligarh University, India), Lecturer, Dept. Maths.

GRAHAM, A., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L. (Gregorian), Assoc. Professor and Chairman, Department of Chemistry, Dean of Science.

GRAY, C.B., A.B. (St. Bonaventure), M.A. (Catholic U. of America), Lecturer, Department of Philosophy.

HABIB, H.P., B.A. (American University of Beirut), M.A. (Fordham), Ph.D. (McGill), Associate Professor and Chairman, Dept. of Political Science.

HANRAHAN, J.R., B.Comm. (St. Mary's), M.B.A. (Harvard), Assistant Professor and Chairman, Department of Business Administration.

HARTMAN, Rabbi D., B.A. (City College, New York), M.A. (Fordham), Sessional Lecturer, Department of Theology.

HAYES, F.J., B.Sc. (London), Ph.D. (McGill), Associate Professor, Department of Economics.

HENKEY, Rev. C., B.C.L. (Gregorian), S.T.D. (Gregorian), Ph.D. (Gregorian), Professor and Chairman, Department of Theology.

HERSKOWITZ, D.S., B.S., (N.Y.C.), Assistant Professor, Department of Economics.

HEWSON, C.G., B.A. (McGill), Lecturer, Department of Mathematics.

HINNERS, R.C., B.A. (Harvard), M.A. (Toronto), Ph.D. (Toronto), Associate Professor, Department of Philosophy.

HOEY, T., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L. (Regis, Toronto), Ph.D. (Harvard), Associate Professor, Department of Classics.

HOFBECK, J., B.A. (Eichstatt), C.C.E.S. (Paris, Sorbonne), S.T.L. (Institut Catholique, Paris), S.T.D. (Institut Catholique, Paris), Assistant Professor, Department of Theology.

HOOPER, A.G., B.A. (Leeds), M.A. (Leeds), Ph.D. (Leeds), Professor, Chairman, Department of English.

HUBBARD, W.H., B.A. (Oregon), Assistant Professor, Department of History.

IWASIW, Mrs. J., B.A. (McGill), Instructor, Department of English.

JACK, Miss B.A., B.A. (McGill), Instructor, Department of English.

JENKINS, J., B.Sc. (McGill), M.Sc. (McGill), Assistant Professor, Department of Geotechnical Science.

JOLY, G.W., B.A. (Montreal), B.Eng. (McGill), M.Eng. (McGill), Professor and Chairman, Department of Engineering and Dean of Engineering.



JONES, P., L.Ph. (Gregorian University), S.T.L. (Gregorian), Lecturer, Department of Theology.

JOOS, E., B.A. (Budapest), M.A. (McGill), L.Ph. (Montreal), Assistant Professor, Department of Philosophy.

JOPE, J., A.B. (Boston College), M.A. (Princeton), Assistant Professor, Department of Classics.

KAUFMAN, D.M., B.Eng. (McGill), Instructor, Departments of Engineering and Computer Science.

KAWAJA, P., B.Comm. (McGill), M.B.A. (Columbia), Assistant Professor, Department of Business Administration.

KAWCZAK, A.S., L.L.M., M.A. (Cracow), Ph.D. (Warsaw), Associate Professor, Department of Philosophy (on leave).

KENNEDY, Rev. D.G., B.A. (St. Michael's College, Vermont), Sessional Lecturer, Department of Theology.

KIM, H., B.Sc. (Seoul National University, Korea), M.Sc. (Seoul), Lecturer, Department of Mathematics.

KLEIN, J.-C., L. ès L. (Sorbonne, Paris), D.E.S. (Paris), Asst. Prof., Dept. French Studies.

KOVACS, R.L., Diploma Maths-Physics (Budapest), M.Sc. (McGill), Ph.D. (McGill), Assistant Professor, Department of Physics.

KRAKOW, K.I., B.Eng. (McGill), M.Sc. (California Institute of Technology), Associate Professor, Department of Engineering.

KRANTZBERG, J.A., B.Eng. (McGill), Lecturer, Department of Engineering (on leave).

KUBINA, S., B.Eng. (McGill), M.Eng. (McGill), Associate Professor, Department of Engineering.

LABBE, G., B.Ed. (Montreal), B.A. (Montreal), L. ès L. (Montreal), D.U.P. (Lettres), (Paris), Professor, Department of French Studies.

LADD, H.W., B.A. (Johnson State), M.A. (Windsor), Ph.D. (Windsor), Assistant Professor, Department of Psychology.

LALLIER, A., B.A. (McGill), M.A. (Columbia), Assistant Professor, Department of Economics.

LAU, H.H., Diplôme d'Etudes Supérieures de Philosophie (Saulchoir), M.A. (Montreal), Assistant Professor, Department of Philosophy.

LAUZIÈRE, A.E., B.A. (Ottawa), M.A. (Montreal), D.U.P. (Lettres), (Paris), Professor, Chairman of the Department of French Studies.

LAVERY, J.J., B.A. (Manitoba), M.A. (Montreal), Ph.D. (Montreal), Associate Professor, Department of Psychology.

LEBENSOLD, Mrs. J., B.A. (Sir George Williams), Lecturer, Department of English.

LECKER, Mrs. E., B.A. (New Brunswick), Instructor, Department of English.

LEDUC, Mrs. P., B.A. (Sherbrooke), B.Ped. (Sherbrooke), M.A. (Montreal), D.U.P. (Lettres), (Paris), Assistant Professor, Department of French Studies.

LEMPKOWSKI, J.E., B.A. (Chicago), M.A. (Chicago), Assistant Professor and Chairman, Department of Classics.

LERMER, Miss J., B.A. (Sir George Williams), Instructor, Department of English.

LEVESQUE-STEIN, Mrs. A., B.A. (Laval), M.A. (Duke), Assistant Professor, Dept. of History.

LEVY, D., C.E.G. (Paris), L. ès L. (Bordeaux), Assistant Professor, Department of French Studies.

LIGIER, Mrs. M.F., L. ès L. (Montreal), B.A. (Besançon), Lecturer, Department of French Studies.

MacDONALD, D.F., B.Comm. (Sir George Williams), C.A., Assistant Professor, Department of Accountancy.

MacGUIGAN, G., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L., Associate Professor, Department of English and Dean of Arts.

MacPHEE, H., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L., Professor, Department of Physics.

MACKRISS, J., B.A. (Toronto), B.L.S. (McGill), M.A. (Toronto), Assistant Professor, Department of French Studies.

MAHEUX, M.V., B.A. (Montreal), M.A. (Catholic U. of America), Ph.D. (McGill), Associate Professor and Chairman, Department of Psychology.

MAILLOT, Mrs. A., B. ès L. (Paris), L. ès L. (Paris), Lecturer, Department of French Studies.

MAJUMDAR, K.N., B.Sc. (Calcutta), Ph.D. (Purdue), Assistant Professor, Department of Mathematics.

MALIK, M., B.A., and M.L. (Boleslav Academy, Czechoslovakia), D.Sc. (Prague), Assoc. Professor, Dept. Communication Arts.

MARTIN, R. K., B.A. (Wesleyan University), Lecturer, Department of English.

MASSE, I., B.A. (Windsor), Assistant Professor, Department of Economics.

MCDONOUGH, G., S.J., B.A. (Montreal), M.A. (West Baden), Sessional Lecturer, Department of Mathematics and Dean of Students.

MCDUGALL, D., B.Sc. (McGill), M.Sc. (McGill), Ph.D. (McGill), Professor and Chairman, Department of Geotechnical Science.

McELCHERAN, D., M.Sc. (McMaster), Ph.D. (Leeds), Associate Professor, Department of Chemistry.

McGRAW, J.G., B.A. (Notre Dame), Ph.L. (Pontifical Institute of Philosophy, Chicago), Ph.D. (Angelicum, Rome), Assistant Professor, Department of Philosophy.

McGRAW, R.L., B.Comm. (McGill), L.A., (McGill), C.A. Assistant Professor and Chairman, Department of Accountancy.

McNAMARA, V.J., B.A. (Toronto), M.A. (Laval), L.Ph. (Laval), Ph.D. (Laval), Associate Professor, Department of Philosophy.

MENARD, L.C., B.A. (St. Procopius College), Lecturer, Department of Sociology.

MONGENOT, G., Diplôme Ecole Normale Supérieure de St-Cloud, Instructor, Department of French Studies.

MOORE, C., B.Sc. (Nottingham), M.Sc. (London), Assistant Professor, Department of Mathematics.

MOORE, J.W., B.A. (Carleton), M.A. (U. of Toronto), Assistant Professor, Department of Political Science.

MORGAN, J.D., B.A. (Loyola, Los Angeles), M.A. (Southern California), Ph.D. (Southern California), Associate Professor, Department of Philosophy.

NEILSON, S.A., B.Sc. (McGill), Sessional Assistant Professor, Department of Engineering.

NEWELL, A., B.A. (Pittsburgh), M.A. (Pittsburgh), Ph.D. (Pittsburgh), Associate Professor, Department of English.

NOGRADY, T., M.Sc. (Budapest), Ph.D. (Budapest), Associate Professor, Department of Chemistry.

NOWICKI, L.P., B.A. (Montclair State College, N.J.), M.A. (University of New York), Assistant Professor, Department of English.

O'BRIEN, D., B.A. (Notre Dame), Ph.D. (Rochester), Associate Professor, Department of History.

O'BRIEN, E., S.J., B.A. (Montreal), Ph.L. (Regis, Toronto), S.T.L. (Montreal), S.T.D. (Louvain), Professor, Department of Theology and Director Contemporary Theology Institute.

O'BRIEN, G., S.J., B.A. (Montreal), M.A. (St. Mary's, Halifax), S.T.L. (Regis, Toronto), S.T.D. (Woodstock), Associate Professor, Department of Theology.

O'BRIEN, J.E., S.J., B.A. (Montreal), S.T.B. (St. Mary's), S.T.L. (Regis, Toronto), Ph.D. (Southern California), Associate Professor, Chairman, Department of Communication Arts.

O'CONNOR, R.E., S.J., B.A. (St. Mary's, Halifax), M.A. (Toronto), S.T.L., Ph. D. (Harvard), Professor, Department of Mathematics.

O'DONNELL, Miss D., B.A. (McGill), Instructor, Department of English.



O'KEEFE, C.B., S.J., B.A. (Montreal), M.A. (Toronto), S.T.L., Ph.D. (Toronto), Associate Professor, Department of History. Academic Vice President.

ORR, J.E., M.Sc. (Berkeley), Sessional Lecturer, Department of Engineering.

OTTOLENGHI, Mrs. E., Certificat d'Etudes Françaises (Grenoble), Certificat de Cours de Professeurs de l'Ecole Pratique de l'Alliance Française (Paris), M.A. (Middlebury), Assistant Professor, Department of Modern Languages.

PAPADANTONAKIS, C., B.A. (Princeton), M.A. (Cornell), Assistant Professor, Department of Economics.

PARK, Miss D., B.A. (College of William and Mary), M.A. (McGill), Assistant Professor, Department of Philosophy.

PORTER, D., B.A. (Oberlin College), Assistant Professor, Departments of History and Political Science.

PRESTON, Mrs. E., B.A. (Manchester), Lecturer, Department of Classics.

PRILLO, A., B.Sc. (Montreal), M.A. (Toronto), Associate Professor and Chairman, Department of Mathematics.

RAFF, A., B.A. (McGill), M.A. (McGill), Ph.D. (Cornell), Assistant Professor, Department of English.

RASPA, A., B.A. (Montreal), B.Ed. (Montreal), M.A. (McGill), Ph.D. (Toronto), Assistant Professor, Department of English.

REIDY, M., A.B. (Boston College), M.A. (Toronto), Assistant Professor, Department of Philosophy.

RIEGEL, M., B.A. (Strasbourg), L. ès L. (Strasbourg), C.A.P.E.S. (Strasbourg), D.E.S. (Strasbourg), Assistant Professor, Department of French Studies.

RIGAULT, Mrs. O., B. ès L. (Rennes), Diplôme de Professeurs de Français à l'Etranger (Sorbonne), Lecturer, Department of French Studies.

RIPSTEIN, H.B., B.Comm. (Sir George Williams), M.B.A. (Queen's), C.A. Assistant Professor, Department of Business Administration.

ROUBEN, C., B.A. (Sir George Williams), L. ès Sc. (Paris), M.A. (McGill), Assistant Professor, Department of French Studies.

RUIGH, R.E., B.A. (Iowa), M.A. (Iowa), Ph.D. (Harvard), Associate Professor, Department of History.

RUSSELL, S., A.B. (Queen's College), M.A. (Harvard), Ph.D. (Harvard), Associate Professor, Department of English. (on leave of absence).

SABAT, J.B., B.Sc., (Waterloo), M.A. (Waterloo), Assistant Professor, Dept. of Mathematics.

SALMON, Miss P., B.A. (Sir George Williams), Lecturer, Dept. of English.

SANTHANAM, S., M.A. (Madras), M.Sc. (Queen's), Ph.D. (Queen's), Assistant Professor, Department of Physics.

SAUTTER, U., D.E.S. (Tubingen), Ph.D. (Tubingen), Assistant Professor, Department of Modern Languages.

SAVAGE, D., B.A. (McGill), Ph.D. (London), Associate Professor, Department of History.

SCHLACKS, C.H., B.A. (Detroit), M.A. (Michigan), Assistant Professor, Department of History (on leave).

SHIN, J., B.S. (Swarthmore College), M.Sc. (Cornell), Assistant Professor, Department of Physics.

SHTERN, I., B.Sc. (Sir George Williams), M.A. (N.Y.-U.), M.Sc. (McGill), Ph.D. (McGill), Associate Professor, Department of Mathematics.

SORIC, J., B.Sc. (McMaster), M.Sc. (McMaster), Assistant Professor, Department of Mathematics.

SPICER, M., B.A. (Montreal), M.A. (Montreal), Lecturer, Department of Theology.

SRIVASTAVA, T., B.Sc. (Lucknow), M.Sc. (Lucknow), Assistant Professor, Department of Mathematics.

SUGDEN, L., B.A. (Manitoba), B.Ed. (Manitoba), M.A. (Manitoba), Ph.D. (Nice), Assistant Professor, Department of French Studies.

TASCONI, J.S., B.A. (St. Bonaventure), M.A. (St. Bonaventure), Assistant Professor and Chairman, Department of Sociology.

TIFFOU, Mrs. M., B. ès L. (Paris), Certificat d'Etudes de Langues Modernes (Sorbonne), Lecturer, Department of French Studies.

TOUPIN, P., B.A. (Montreal), M.A. (Columbia), D.-A.U. (Lettres), (Aix), Professor, Department of French Studies.

TRUCHON, N., B.A. (Laval), M.A. (McGill), Lecturer, Department of French Studies.

TRUDEL, G., B.Sc. (McGill), Ph.D. (Leeds), Assistant Professor, Department of Chemistry.

UIHLEIN, G.V., B.Sc. (Worcester Polytechnic Institute), M.Sc. (Worcester), Sessional Lecturer, Department of Chemistry and Assistant Dean of Men.

VALASKAKIS, Mrs. G., B.Sc. (University of Wisconsin), M.A. (Cornell), Lecturer, Department of Communication Arts.

VAN TOCH, Mrs. L., B.A. (University of Durham), L. ès L. (Lille), M.A. (Durham), Lecturer, Department of French Studies.

VERRON, Mrs. C., B.A. (Hunter College), M.A. (Columbia), Lecturer, Department of French Studies.

VINCE, D., B.Sc. (Dalhousie), M.A. (Dalhousie), Sessional Lecturer, Department of Political Science.

WARDELL, H., S.J., B.A. (Montreal), Assistant Professor, Department of Engineering.

WARDY, Mrs. B., B.A. (McGill), M.A. (McGill), Assistant Professor, Department of Classics.

WAREHAM, R., B.A. (R.M.C.), M.A. (Michigan), Assistant Professor, Department of English. (on leave)

WATERS, Mrs. K., B.A. (McGill), M.A. (Oxford), Assistant Professor, Department of English.

WEBSTER, A.J., B.A. (St. Thomas College, Denver), M.A. (St. Thomas College), Assistant Professor, Department of Theology.

WESOLOWSKY, S.O., B.A. (Montreal), M.A. (Princeton), Assistant Professor, Department of Theology.

WEST, P.R., B.A. (McGill), Instructor, Department of English.

WHITEHALL, E.C., C.A., Sessional Lecturer, Department of Accountancy.

WRIGHT, Mrs. B., B.A. (University of South Africa), M.A. (University of South Africa), Assistant Professor, Department of Economics.

YATES, Miss D., B.A. (Dalhousie), B.Ed. (Acadia), M.A. (U. of Montreal), C.E.L. (Paris), Lecturer, Department of English.

ZIENIUS, R., B.Sc. (McGill), Ph.D. (McGill), Assistant Professor, Department of Chemistry.

## NEW FACULTY

### academic year 1968-1969

ANTOLIN, Dr. F., B.A. (Leon, Spain), L. ès L. (University of Madrid), D. ès L. (Madrid), Associate Professor, Department of Modern Languages.

CAVANAUGH, B., B.A. (Providence College), M.A. (Catholic University of America), Assistant Professor, Dept. of Philosophy.

COCKERLINE, C., B.A. (Bishop's University), Instructor, Dept. of English.

COSTANZO, A., B.A. (University of British Columbia), M.A. (University of Washington), Assistant Professor, Department of Modern Languages.

DATTA, A., B.A. (Calcutta University), M.A. (Calcutta), Ph.D. (State University of New York at Buffalo), Assistant Professor, Dept. of Economics.

DEWEY, G., B.A. (University of Notre Dame), M.A. (U. of Notre Dame), Ph.D. (Notre Dame), Associate Professor, Dept. of Sociology.



FAMIRA-PARCSETICH, H., Ph.D. (McGill University), Assistant Professor, Department of Modern Languages.

FLETCHER, Mrs., A., B.A. (Leeds University), Instructor, Dept. of English.

FLYNN, B., B.A. (Duquesne University), M.A. (Duquesne), Ph.D. (Duquesne), Assistant Professor, Dept. of Philosophy.

GREENSPAN, H., B.Sc. (McGill), M.Sc. (McGill), Lecturer, Department of Mathematics.

GROBOVSKY, A., B.A. (University of California at Santa Barbara), M.A. (Yale), Assistant Professor, Department of History.

GROSS, G., B.A. (McGill), M.F.A. (Carnegie Institute of Technology), Assistant Professor, Department of English.

LASZLO, L., B.A. (University of Illinois), M.A. (Columbia), Assistant Professor, Department of Political Science.

LAURION, G., B.A. (University of Montreal), L. ès L. (University of Montreal), D.U.P. Lettres (Univ. of Paris), Associate Professor, Dept. of French Studies.

MacINTYRE, Miss L., B.A. (University of Montreal), Instructor, Department of English.

McPHAIL, T., B.A. (McMaster University), M.A. (University of Buffalo), Assistant Professor, Department of Sociology.

MOULEDOUS, Mrs. E., B.A. (Tulane University), B.S.L.S. (Louisiana State), M.A. (Louisiana State), Assistant Professor, Department of Psychology.

NORRIS, J.J., A.B. (University of Notre Dame), M.A. (Notre Dame), Assistant Professor, Department of Sociology.

O'BRIEN, Sister Marie, B.S. (St. John University, N.Y.), M.A. (Gonzaga University), Lecturer, Dept. of Theology.

OH, Ki Song, B.A. (Chuo College, Tokyo), LLB (Tokyo), M.A. (U. of Pennsylvania), Ph.D. (Pennsylvania), Associate Professor, Dept. of Political Science.

PHILMUS, Maria, Ph.D. (University of Ca' Foscari, Venice), Assistant Professor, Dept. of English.

PHILMUS, R. M., B.A. (Brown University), Assistant Professor, Dept. of English.

POTEET, Mrs. S.H., B.A. (Wellesley College), M.A. (University of Minnesota), Lecturer, Department of English.

SHACTER, D., B.A. (Sir George Williams University), M.A. (University of Omaha), Ph.D. (Illinois Institute of Technology), Assistant Professor, Dept. of Psychology.

SNIDER, Miss L., B.A. (University of Toronto), Lecturer, Department of Sociology.

SULLIVAN, J.-P., B.A. (University of Montreal), Instructor, Department of English.

WEBB, I.M., A.B. (Tufts University), M.A. (Stanford), Assistant Professor, Department of English.

YALAMOW, N.P., B.L. (Paris), M.A. (Sofia), M.Sc. (Sofia), Agrégé d'Etat (Sofia), Ph.D. (Sofia), Professor, Dept. of Modern Languages.

## COMMITTEES :

### The Committee on Appointments, Rank and Tenure :

#### Members :

Dr. A. Hooper	Chairman
Dr. F. G. W. Adams	Secretary
Dr. H. Habib	
Dr. T. Nogrady	
Rev. C. B. O'Keefe, S.J.	

## COMMITTEES OF SENATE

Note: The date assigned to each name is the retiring date. Where a date is not assigned the member belongs ex officio to the Committee.

### The Committee on Academic Standing :

#### Members :

Dean L. Bessner		Chairman
Mr. R. Coolidge	1969	
Dr. M. Doughty	1969	
Dr. C. E. Eappen	1968	
Rev. A. Graham, S.J.		
Mr. J. Hanrahan	1968	
Rev. C. Henkey	1970	
Dean G. Joly		
Dr. G. Labbé	1969	
Mr. A. Lallier	1970	
Mr. J. Lempkowski	1968	
Rev. G. MacGuigan, S.J.		
Dr. A. Newell	1970	
Mr. J. Noonan		
Rev. C.B. O'Keefe, S.J.		
Mr. D. Potvin		

### The Committee on Admissions :

#### Members :

Mr. T. Copp	1969	Chairman
Mr. M. Allen		
Dr. M. Blamar	1970	

Dean L. Bessner		
Mr. W. Cozens		
Rev. A. Graham, S.J.		
Mr. C. Hewson	1970	
Dean G. Joly		
Rev. G. MacGuigan, S.J.		
Dr. J. McGraw	1969	
Mr. R. McGraw	1968	
Mr. J. Noonan		
Mr. D. Potvin		
Dr. P. Toupin	1968	
Dr. G. Trudel	1970	

### The Curriculum Committee :

#### Members :

Dr. D. Savage	1968	Chairman
Dean L. Bessner		
Rev. A. Graham, S.J.		
Rev. T. Hoey, S.J.	1969	
Dr. A.G. Hooper	1969	
Dean G. Joly		
Mr. P. Kawaja	1970	
Mr. K.I. Krakow	1968	
Dr. A. Lauzière	1969	
Rev. G. MacGuigan		
Dr. V. Maheux	1969	
Dr. D. McDougall	1970	
Dr. T. Nogrady	1968	
Rev. G. O'Brien, S.J.	1968	
Rev. J. O'Brien, S.J.	1970	
Rev. C.B. O'Keefe, S.J.		
Mr. D. Potvin		

### The Sub-Committee on the Scheduling of Lectures and Examinations :

#### Members :

Mr. R. McGraw	1968	Chairman
Mr. J. Britt		
Mr. J. Doyle	1970	
Mr. C. Hewson	1969	Secretary
Mr. T. Murphy		
Mr. J. Noonan		



**The Committee on Prospectus:****Members :**

Mr. T. Murphy		Chairman
Mr. J. Mackriss	1969	
Rev. G. O'Brien, S.J.	1968	
Mrs. K. Waters	1970	

**The Committee on Visiting Lecturers,  
Special Speakers, etc. :****Members :**

Dr. J. Buell	1968	Chairman
Mr. J. Dorrance		
Mr. R. Duder		
Dr. H. Habib	1968	
Dr. D. McDougall	1970	
Dr. V. McNamara	1969	
Rev. J. O'Brien, S.J.	1968	
Dr. P. Toupin	1969	
Mrs. K. Waters	1970	
Mr. A. Webster	1969	

**Faculty Representatives on the Student  
Life Committee :****Members :**

Mr. A. Lallier	1969
Mr. J. Hanrahan	1970
Dr. D. O'Brien	1968

**The Library Board :****Members :**

Mr. R. Coyte	1968	Chairman
Dr. G. Adams	1968	
Dr. S. Bagchi	1969	
Dr. N. deTakacsy	1970	
Mr. R. Duder	1968	
Mr. C. Goldman	1970	
Mr. J. Mackriss	1970	
Dr. J. Morgan	1969	
Rev. G. O'Brien, S.J.	1969	
Mr. J. Prinz		
Mr. H. Ripstein	1970	
Dr. S. Russell	1968	
Mr. J. Tascone	1970	
Mr. G. Trowsdale		

**The Scholarship Committee :****Members :**

Dr. M. Doughty	1969	Chairman
Dr. M. Andersen	1970	
Mr. R. Coolidge	1969	
Mr. W. Cozens		
Mr. P. Lefebvre		Secretary
Mr. D. MacDonald	1968	
Rev. G. McDonough, S.J.		
Mr. T. Murphy		
Mr. J. Noonan		
Rev. J. O'Brien, S.J.	1968	
Mr. J. Soric	1970	

**The Sub-Committee on Graduate Awards  
and Programs :****Members :**

Dr. M. Blamar	1969	Chairman
Mr. W. Cozens		Executive Secretary
Dr. N. deTakacsy	1970	

**The Evening Division Committee :****Members :**

Mr. D. Potvin		Chairman
Dr. M. Blamar	1968	
Dr. K. Ekler	1968	
Dr. H. Habib	1969	
Mr. I. Masse	1969	
Mr. D. MacDonald	1970	
Mr. J. Noonan		
Mr. C. Rouben	1970	

## HISTORY OF LOYOLA COLLEGE

The origins of Loyola College may be traced to the opening of the Collège Ste-Marie in 1848, which resumed in Montreal the work of the historic Jesuit College of Quebec, opened in 1635. From its conception the classical course at the College began with both languages, French and English, on an equal footing. From 1888 to 1896 the classical course in English was operated as distinct from that in French, both being considered separate units within one institution.

On September 2, 1896, Loyola College was opened at 2084 St. Catherine Street West, but only on February 2, 1899 was *Loyola College* incorporated by an Act of the Quebec Legislature. It had its origin in the separate course, inaugurated ten years earlier, for the English-speaking students at Collège Ste-Marie. On February 5, 1899, Laval University officially extended its Bachelor of Arts degree to Loyola students under the special privileges granted by the Holy See in its Constitution *Jamdudum*, and the first degrees were awarded by Laval in 1903. A similar arrangement was made with the University of Montreal when it was established. In consequence of these arrangements, Loyola was assured of complete autonomy and independence in the shaping of its curriculum and in the conducting of its examinations in Arts courses, degrees being granted by the University of Montreal. Loyola instituted its Faculty of Science in 1943 and its Faculty of Commerce in 1948. All courses in the three faculties are conducted at the College, and by special arrangement the University of Montreal grants B.Sc. and B.Comm. degrees to students who have successfully completed their courses in these faculties. The curriculum and examinations of these courses, however, are under the control of the University. Since the early days of Loyola, many changes have occurred, especially evident in the evolution of curriculum which more and more set the College in the Anglo-Canadian tradition. For instance, the eight-year course was broken up into two distinct four-year units (1919) and options were introduced (1921), confirming three distinct courses, at least in the last two years of college; Arts (General), Arts (Pre-Medical), Arts (Pre-Science). In 1943 other changes were initiated which transformed Loyola into the developed academic institution it is today. A distinct Faculty of Science was established, of-

fering Honours Chemistry and Honours Physics; the first three years of Engineering were introduced in Civil, Mechanical, Mining, Chemical, and Metallurgical Engineering; major fields in Economics, English and History were established in 1953 and in Theology in 1962. Honours Courses in Economics, English and History were initiated in 1958 and in Theology in 1963. An Extension Department, since renamed the Evening Division, and a Summer School were founded in 1957 to fill the need of those unable to pursue their studies during the day and thus provide a public service.

The academic world soon recognized the new status of Loyola: the Chemical Institute of Canada (CIC) approved the Honours Chemistry programme as fulfilling all the requirements for professional standing in its Institute; the Engineering Institute of Canada (EIC) recognized the competence of the Loyola Engineering Department; the Institute of Chartered Accountants of Quebec accepted the work done in the Commerce course, a major in Accountancy, and granted the same privileges to Loyola graduates as were conferred on graduates of other older institutions; the Canadian Conference of Canadian Universities and Colleges accepted Loyola as an autonomous member. All faculties of the College have prepared students for and have sent them to the graduate schools of American, British and Canadian universities, which have conferred Engineering, Master's and Doctoral degrees on them.

The growth of Loyola has brought with it noticeable changes; for example, there are now four faculties and twenty-one departments; the number of lay members of the staff has increased very greatly; and, there has been a very ambitious building programme established to provide the necessary physical facilities.

The rising importance of the Extension Department and the Summer School necessitated a revaluation of the programme in the course of which the Extension Department was renamed the Evening Division of Loyola College and became more closely integrated with the Day Division of the College. The Summer School has retained its basic structure, but day courses were offered for the first time during the summer of 1964.

Further information about the work of these two divisions may be obtained from the Director of the Evening Division.



## AIM OF LOYOLA COLLEGE

The aim of Loyola College has been well stated by John Henry Cardinal Newman in a Sermon preached in the University Church at Dublin entitled "Intellect, the Instrument of Religious Training" in which he states: "...I wish the intellect to range with the utmost freedom, and religion to enjoy an equal freedom, but what I am stipulating for is, that they should be found in one and the same place. (i.e., religion and science) and exemplified in the same persons... wish the same spots and the same individuals to be at once oracles of philosophy and shrines of devotion.

It will not satisfy me, what satisfies so many, to have two independent systems, intellectual and religious, going at once, side by side, by a sort of division of labour, and only accidentally brought together. It will not satisfy me, if religion is here and science there, and young men converse with science all day, and lodge with religion in the evening. It is not touching the evil, to which these remarks have been directed, if young men eat, and drink and sleep in one place, and think in another; I want the same roof to contain both the intellectual and moral discipline.

Devotion is not a sort of finish given to the sciences; nor is science a sort of feather in the cap, if I may so express myself, an ornament and set-off to devotion. I want the intellectual layman to be religious, and the devout ecclesiastic to be intellectual...

Sanctity has its influence; intellect has its influence; the influence of sanctity is the greater on the long run; the influence of intellect is greater at the moment. Therefore in the case of the young, whose education lasts a few years, where the intellect is, there is the influence. Their literary, their scientific teachers, really have the forming of them..."

This is Loyola's reason for existence; this is Loyola's aim.

## ADMISSIONS

Admission to first year is granted to students with Junior Matriculation.

Admission to second year is granted to students with Senior Matriculation.

Admission to second and third years is granted to transfer students.

Admission is granted on the basis of ability, achievement and promise as evidenced by:

- 1 Principal's Letter of Recommendation.
- 2 Official Academic Records.
- 3 Results of C.E.E.B. Tests: 2 S.A.T. (verbal and mathematics), 3 achievement tests, one (1) of which must be English Composition. These tests should be written not later than March of the year for which application is being made.
- 4 Recommendation by the Admissions Committee, after interview if required.

Sometimes the Committee will recommend the admission of a mature student, over 21 years of age, whose secondary education has been interrupted by causes beyond his control. Sometimes it will recommend conditional admissions, with probationary requirements. Any student who fails to satisfy his probationary requirement must withdraw and will not be considered for re-admission.

(Note: All documents submitted become the property of the College if the applicant is accepted). Applications for admission should be addressed to the Registrar, Loyola College, 7141 Sherbrooke Street West, Montreal 28, not later than June 1.

**ADMISSION TO FIRST YEAR** In Canada, Junior Matriculation standing, with college entrance attainment, indicates ability, achievement and promise sufficient for admission into first year: specifically, The Catholic High School Leaving Certificate, Department of Education, Province of Quebec (10 papers), and The High School Leaving Certificate, Department of Education, Province of Quebec (10 papers), with 50 per cent in each paper and an average of 65 per cent for general

studies, but 70 per cent for Honours studies and the Engineering programme. Consult individual study programmes for subjects required. English Literature, English Composition, Elementary Algebra and Elementary Geometry are always required. English Literature, English Composition, Intermediate Algebra, Trigonometry, Chemistry and Physics are required subjects for Honours Science Studies and the Engineering Programme.

Some equivalents of the above are : in the United States, Grade XII certificate with the college recommending mark as announced by the particular High School; in Great Britain, the General Certificate of Education, if it indicates satisfactory completion of five subjects at the ordinary level (including English, another language, and Mathematics); in Latin America, a certificate showing satisfactory completion of courses necessary for admission to university in the applicant's own country.

**ADMISSION TO SECOND YEAR** In Canada Senior Matriculation or its equivalent is sufficient for clear entry, apart from prerequisites, into second year General studies in Arts, Commerce and Science if it is obtained with 50% in each paper and an average of 60%. A 70% average is required for Honours studies.

#### TRANSFER STUDENTS

Special admission to 2nd or 3rd year may be given to students in good standing applying for advanced standing with credit given for work done at another university or college (transfer students).

Applications for advanced standing should be addressed to :

The Registrar  
Loyola College  
7141 Sherbrooke St. W.,  
Montreal 28, Quebec

Applications must be made not later than June 1st.

By July 15th applicants must present to the Registrar the following documents from the university they left :

- 1 an official transcript (indicating not less than 60% standing average);
- 2 a statement of honourable dismissal;
- 3 permission to enter the faculty, year and session for which application is being made at Loyola.

#### NOTE :

No transfer student may be admitted directly into 4th year, because attendance at lectures for at least two academic years is required.

#### NOTE :

Transfer students must have their academic status certified by department chairman and dean before registration date.

**ACCEPTANCE** Upon receipt of a letter of acceptance applicants will be required to submit within a specified time a deposit of FIFTY DOLLARS (\$50.00). This deposit is NON REFUNDABLE but is deductible from tuition fees for the academic year. Failure to comply with this requirement is considered a forfeiture of acceptance.



## ACADEMIC COUNSELLING

All aspects of Academic Orientation, Counselling and Academic Administration for Freshman Students are under the direction of the Director of Freshmen. The upperclassman's academic work will be directed by the Head of the Department of the Faculty in which he is registered.

To facilitate counselling and to provide the Freshman Students with a counsellor from the faculty, a committee of Faculty Advisers operates under the Director. Each faculty member has a small number of students with whom he may become more closely associated than is possible in the lecture room, and whose academic work he reviews periodically with the student.

## GUIDANCE CENTRE

Cognizant of the changing times; sensitive to the numerous problems with which youth is confronted and anxious to aid students in achieving their full potential, Loyola opened a Guidance Centre in September 1965. The aims of the Centre are to assist students with (1) Academic Problems which are not solely of an educational nature, (2) the choice of a Vocation, (3) Personal Problems. (4) The Centre thus offers students an opportunity to discuss in all confidence, anything that bothers them. Aptitude, Personality, Vocational Interests, Achievement and Intelligence Testing is made available to those who could benefit by such testing. All students are encouraged to make full use of the Centre's facilities.

## ACADEMIC REGULATIONS

### Length of Programmes

Students who enter with Junior Matriculation standing will normally require four calendar years to obtain a Bachelor's degree.

A student may reduce the number of calendar years required for a degree by taking courses in Summer Sessions and carrying one course in excess of the normal year's load.

### NOTE :

Such acceleration requiring the prior approval of Chairman and Dean, will not be allowed until completion of 2nd year, and only if the student has obtained much better than average standing in 2nd year (70%).

### WARNING :

No credit will be granted for Summer Session courses taken without the required approval of Chairman and Dean, nor will the grades for such courses appear on the student's transcript.

**YEAR'S LOAD :** the normal coarse load for each year is indicated in departmental programmes.

### Registration

Students must register annually at the times specified in the Academic Calendar (CF front of this book).

First year students register according to year, faculty and courses.

Upperclass students register according to year, faculty department and courses.

### Some Specific Conditions :

- a) A student may register for 3rd year only if he has obtained complete standing in 1st year.
- b) A student may register for 4th year only if he has obtained complete standing in 2nd year.
- c) A student may register for advanced courses only if he has successfully completed prerequisite courses.
- d) A student may transfer to another department or faculty only if he has completed the proper forms.

### Change of Registration

During a short period following registration (the date is specified in the Academic Calendar), a student may drop a course, with or without substituting another one, but only if his chairman recommends it, his Dean approves it, and the Registrar and instructor concerned are informed.

### Some Special Purpose Categories :

- A) For Government purposes and Bursar's Office:
1. **FULL-TIME STUDENTS:** full-time students are students registered for four or more full courses.
  2. **PART-TIME STUDENTS:** part-time students are students registered for less than four full courses.
- B) For Registrar and Deans:
1. **DEGREE CANDIDATES:** Degree Candidates are students proceeding to a degree.
  2. **SPECIAL STUDENTS:** Special Students are students full or part-time, not proceeding to a degree.

### NOTE :

A SPECIAL FEE IS CHARGED FOR LATE REGISTRATION: \$10.00 for the first day and \$3.00 for each succeeding day.

### Graduation Registration

Fourth year students must, before February 2nd make special application for their degrees, on forms provided by the Records Office.

### Exchange Students

A student may study for one year (2nd or 3rd NOT 4th) at another university and have his work credited towards his degree provided that his Chairman and Dean have given prior approval.

### Term Work

Term work includes written assignments, class, seminar and tutorial participation, work done in laboratory periods, and term tests and quizzes.

The grade-value of term work in any course can be up to 70%. Professors will make known to their students early in the term the grade value ratio of term work to final examination.

Students are expected to attend all lectures, seminars, tutorials and laboratory periods for which they are registered.

The penalty for plagiarizing is, of course, severe. The minimum penalty is zero for the assignment. Severer penalties may be recommended by professors.

Students should consult the *Loyola Style Manual* for the official description of plagiarism, and the Students' Academic Committee for details regarding their right to appeal.

### Formal Examinations

First Year students must submit to formal examination in all courses at mid-year.

All students must submit to formal "Final" examinations in all courses.

At apt times the Registrar will post the "Examination Regulations".

Cheating: The penalty for cheating is, of course, severe. The minimum penalty is zero for the examination or test. Severer penalties may be recommended. Students should consult the Students' Academic Committee for details regarding their right to appeal.

### Grading Scale

The grading scale both for individual courses and the year's average is as follows :

"A"	First Class Honours	80% and up
"B"	Second Class Honours	65% to 79%
"C"	Third Class	55% to 64%
"D"	Pass	50% to 54%
"F"	Failure	00 to 49%

### Cum Laude

The Bachelor's Degree is granted according to these traditional categories :

Cum laude to students with a four year average of between 70% and 79%.



Magna cum laude	to students with a four year average of between 80% and 89%.
Summa cum laude	to students with a four year average of 90% or over.

### Academic Status

A student's academic status is determined in May and is based on all the courses for which he is registered.

A student is Clearly **PROMOTED** if he has failed no courses and has an average of 50% or better.

A student has Clearly **FAILED**

a) if his average is less than 50%

OR b) if he has failed more than two full courses.

A Clearly **FAILED** student will be allowed to repeat his year, upon request, if :

a) his average is not less than 35%

and b) he has not previously failed a year.

A **FAILED** student who does not satisfy these conditions **MUST WITHDRAW**.

A repeating student who is not **CLEARLY PROMOTED** in September **MUST WITHDRAW**.

The academic status of a student who is not clearly promoted, and has not clearly failed will be determined by his Dean in consultation with the Director of Freshmen, or the student's department Chairman.

### Mid-Year Dismissal

A first year student who has failed to obtain 30% in the mid-year examinations **MUST WITHDRAW**. He may apply for readmission the following September.

A first year repeater who has failed to obtain 50% in the mid-year examinations **MUST WITHDRAW**.

### Reports

Official reports will be issued :

a) in January, for first year students;

b) in May for all students.

Official May reports must be retained and presented at registration.

### Recognition of Student Rights

If sickness, or death in the family, prevents a student from writing final examinations he should apply to the Academic Standing Committee for aegrotat standing, or permission to write special examinations.

The application plus relevant documents should be submitted to the Registrar not later than one week following the examinations.

A first year student required to withdraw at Christmas time may appeal to his Dean within one week of the publication of reports.

A student may appeal a punitive decision for alleged plagiarism or cheating. He should consult the Students' Academic Committee for procedures.

A student may appeal against what he considers unfair and unprofessional treatment by a professor or Dean. He should consult the Students' Academic Committee for procedures.

A student may, if he thinks that some factor affecting his grades was not considered by the examiner, appeal to have his paper reread. The appeal should be made in writing to the Registrar not later than two weeks after the publication of reports. A fee of \$10.00 is payable to the Registrar for rereading.

## COURSES

## FACULTY OF ARTS

Students admitted to Arts follow General and Honours programmes of twenty-one courses for four years.

A General Arts student will choose a field of concentration ("major") from: Classics, Communication Arts, Economics, English, French, German, History, Modern Languages, Philosophy, Political Science, Psychology, Sociology, Spanish, Theology. The field of concentration is normally chosen at the end of first year.

An Honours student, one who welcomes the opportunity for deeper and more intensive study, with an eye, perhaps, to post-graduate studies, will choose (subject to departmental approval) from: Classics, Economics, English, French Studies, History, Philosophy, Political Science, Theology.

A chosen field of concentration or an honours programme may dictate the electives to be taken in first year. Students should consult with the department of their choice during the period of academic counselling preceding registration.

## PROGRAMMES OF STUDIES AVAILABLE

	MAJORS														HONOURS							
	Classics	Comm. Arts	Economics	English	French	German	History	Modern Lang.	Philosophy	Political Sc.	Psychology	Sociology	Spanish	Theology	Classics	Economics	English	French	History	Philosophy	Political Sc.	Theology
	8	2	2	2	2	2	2	1	2	2	2	2	2	2	11	1	2	1	1	2	1	2
Classics																						
Comm. Arts		7														8						
Economics			6																			
English	2	2	2	7	2	2	2	2	2	2	2	2	2	2	1	1	9	2	1	1	2	1
French	2	2	2	2	8	2	2	3	2	2	2	2	2	2	2	2	1	10	1	2	1	2
German						8																
History							6	1											10			
Mathematics			1								1	1				1						
Modern Languages								9														
Philosophy	2	2	2	2	2	2	2	2	6	2	2	2	2	4	2	2	2	2	2	10	2	3
Political Science										7											9	
Psychology											6											
Sociology												7										
Spanish													7									
Theology	2	2	2	2	2	2	2	2	2	2	2	2	2	7	2	2	2	2	2	2	2	10
Electives	6	4	4	6	5	3	5	1	7	4	4	4	4	4	4	4	5	4	4	4	4	3
Required Courses	22	21	21	21	21	21	21	21	21	21	21	22	21	21	22	21	21	21	21	21	21	21

<sup>1</sup>Two of the Electives Courses must be Language electives

<sup>2</sup>Second year French may be replaced by Language Elective



# BACHELOR OF ARTS PROGRAMME

## HONOURS

YEAR	CLASSICS	ECONOMICS	ENGLISH	FRENCH	HISTORY	PHILOSOPHY	POLITICAL SCIENCE	THEOLOGY
First	CLASSICS 102 English 101 French Elective	Classics 102, 111, 112, or 121 ECONOMICS 100 English 101 French Elective	Classics 101 English 101 French Elective	Classics 102, 111, 112, or 121 English 101 French Elective	Classics 102, 111, 112, or 121 English 101 French Elective	Classics 102, 111, 112, or 121 English 101 French Elective	Classics 102, 111, 112, or 121 English 101 French Elective	Classics 102, 111, 112, or 121 English 101 French Elective
Second	GREEK LATIN French Philosophy Elective	ECONOMICS 260 English Philosophy Theology Elective	Classics 112, 202, or 221 ENGLISH (4 ELECTIVES from the list of 217, 320, 350, 360, 440, 520.) Philosophy Theology Elective	English (3 ELECTIVES from 228, 230, 240, 250, 260, the 300s or the 400s) Philosophy Theology or Elective	HISTORY (3 ELECTIVES GENERAL COURSES) Philosophy Theology	Classics 112, 202, 212, or 221 English 101 French Elective	English POLITICAL SCIENCE 201 POLITICAL SCIENCE 315 Theology Elective	Classics 112, 202, 212, or 221 English Philosophy THEOLOGY (3) ELECTIVES
Third	GREEK LATIN ANCIENT HISTORY Philosophy Theology	ECONOMICS 366 ECONOMICS 304 Philosophy Theology Elective	ENGLISH (the equivalent of three full courses from the list of HONOURS and MAJORS COURSES) Philosophy Elective	FRENCH (3 ELEC- TIVES from 230, 240, 250, 260, or the 300s & 400s) Philosophy	HONOURS HISTORY (2 ELECTIVES from HONOURS COURSES) Philosophy Elective	HISTORY OF PHILOSOPHY SEMINAR (2) ELECTIVES Theology	Philosophy POLITICAL SCIENCE (3) ELECTIVES Elective	Philosophy Social Science THEOLOGY (3) ELECTIVES
Fourth	GREEK HONOURS LATIN HONOURS TUTORIAL PROSE COMPOSITION Theology Elective	ECONOMICS 461 or 464 or 480 ECONOMICS (2 ELECTIVES) Elective	ENGLISH (the equivalent of three full courses from the list of HONOURS and MAJORS COURSES) Theology Elective	FRENCH 428 FRENCH (2 ELECTIVES from 230, 240, 250, 260, or the 300s & 400s) Theology or Elective	HONOURS HISTORY TUTORIAL HISTORY (2 ELECTIVES from HONOURS COURSES) Elective	HISTORY OF PHILOSOPHY SEMINAR (2) ELECTIVES Elective	POLITICAL SCIENCE 371 H POLITICAL SCIENCE (3) ELECTIVES Theology	Philosophy THEOLOGY (3) ELECTIVES

# BACHELOR OF ARTS PROGRAMME

## MAJORS

YEAR	CLASSICS	COMMUNICATION ARTS	ECONOMICS	ENGLISH	FRENCH	GERMAN	HISTORY
First	CLASSICS 102 English 101 French Elective	Classics English French Elective	Classics 102, 111, 112, or 121 ECONOMICS 100 English 101 French Elective	Classics 101 English 101 Elective	Classics 102, 111, 112, or 121 English 101 FRENCH 128 or 130 Elective	Classics 102, 111, 112, or 121 English 101 French 120, 124, 128, or 130 GERMAN 100 Elective	Classics 102, 111, 112, or 121 English 101 French Elective
Second	CLASSICS English French Philosophy Theology	Classics COMMUNICATION ARTS 200-205 English French Philosophy Elective	Classics 112, 202, 212, or 221 ECONOMICS 210 ECONOMICS 221 French Philosophy Theology	Classics 112, 202, 212, or 221 ENGLISH (4 ELECTIVES from 210, 212, 215, 217, 320, 350, 360, 440, 520) French Philosophy Elective	Classics 112, 202, 212, or 221 English FRENCH 224, 228 or any other in the 200s, 300s or 400s Philosophy Theology or Elective	Classics 112, 202, 212, or 221 English French 220, 224, 228, 230-240, 250, or 260 GERMAN 200 Philosophy Theology or Elective	Classics 112, 202, 212, or 221 French HISTORY 2 ELECTIVES from General Courses Philosophy Theology
Third	CLASSICS CLASSICS CLASSICS Elective	COMMUNICATION ARTS (3 ELECTIVES) Philosophy Elective	ECONOMICS 306 ECONOMICS 304 Philosophy Theology Elective	ENGLISH (the equivalent of full courses from the list of HONOURS & MAJORS COURSES) Philosophy Elective	FRENCH 328 FRENCH (2 ELECTIVES from the list 230-240, 250, 260, or the 300s & 400s) Philosophy Theology or Elective	GERMAN 300 or History 214 GERMAN 2 ELECTIVES from 300s or 400s Philosophy Theology or Elective	English HISTORY 2 ELECTIVES from General Courses Philosophy Elective
Fourth	CLASSICS CLASSICS Philosophy Elective	COMMUNICATION ARTS (3 ELECTIVES) Theology Elective	ECONOMICS ELECTIVE English Elective	ENGLISH (the equivalent of 2 full courses from the list of HONOURS & MAJORS COURSES) Theology Elective	FRENCH 428 FRENCH (2 ELEC- TIVES from 230- 240, 250, 260, or the 300s & 400s) Theology or Elective	GERMAN 3 ELECTIVES from 300s or 400s Language Elective Theology or Elective	HISTORY from General Courses Theology Elective

# BACHELOR OF ARTS PROGRAMME

## MAJORS

YEAR	MODERN LANGUAGES	PHILOSOPHY	POLITICAL SCIENCE	PSYCHOLOGY	SOCIOLOGY	SPANISH	THEOLOGY
First	Classics 102, 111, 112, or 121 English 121, 124, 125, or 130 MODERN LANG. (1) ONE ELECTIVE from German 200, Italian 100, or Spanish 100 or Elective	Classics 102, 111, 112, or 121 English 101 French Elective Elective	Classics 102, 111, 112, or 121 English 101 French Elective Elective	Classics 102, 111, 112, or 121 English 101 French Elective Elective	Classics 102, 111, 112, or 121 English 101 French Elective Elective	Classics 102, 112, 112, 121, or 221 English 101 French 120, 124, 128, or 130 SPANISH 100 Elective	Classics 102, 111, 112, or 121 English 101 French Elective THEOLOGY Elective
Second	English 224, 228, 230, 240, 250, or 260 MODERN LANG. (1) ONE ELECTIVE from German 200, Italian 100, or Spanish 200 MODERN LANG. (2) ONE ELECTIVE from German 200, Italian 100, or Spanish 200 Philosophy	Classics 112, 202, 212, or 221 English 101 French Elective HISTORY OF PHILOSOPHY PHILOSOPHY 200 THEOLOGY	Classics 112, 202, 212, or 221 English 101 French Elective POLITICAL SCIENCE THEOLOGY	Classics 112, 202, 212, or 221 English 101 French Elective PSYCHOLOGY 201 STATISTICS 202 THEOLOGY	Classics 112, 202, 212, or 221 English 101 French 220, 224, 230, 240, 250, or 260 Philosophy SPANISH 200 THEOLOGY or Elective	Classics 112, 202, 212, or 221 English 101 French 220, 224, 230, 240, 250, or 260 Philosophy SPANISH 200 THEOLOGY or Elective	Classics 112, 202, 212, or 221 English 101 French Elective THEOLOGY (2 ELECTIVES)
Third	MODERN LANG. (1) ONE ELECTIVE from the 300s in German, Italian, or Spanish MODERN LANG. (2) TWO ELECTIVES from the 300s in German, Italian, or Spanish Philosophy Elective from Political Science, or Sociology	HISTORY OF PHILOSOPHY SEMINAR THEOLOGY Elective	Philosophy POLITICAL SCIENCE (3 ELECTIVES) Elective	PSYCHOLOGY 305 THEOLOGY Elective Elective	Philosophy SOCIOLOGY 300 SOCIOLOGY 301-305 ELECT. Elective Elective	Language Elective SPANISH (2 ELEC-TIVES from 300s & 400s) THEOLOGY or Elective	Philosophy Social Science THEOLOGY (2 ELECTIVES)
Fourth	French MODERN LANG. (1) ONE ELECTIVE from the 300s in German, Italian, or Spanish MODERN LANG. (2) ONE ELECTIVE from the 300s in German, Italian, or Spanish THEOLOGY/Elective in one of the two Major MODERN LANG.	HISTORY OF PHILOSOPHY SEMINAR Elective Elective	POLITICAL SCIENCE (3 ELECTIVES) THEOLOGY One Elective	English Philosophy Elective Elective	Philosophy SOCIOLOGY 400 Elective Elective	Language Elective SPANISH (2 ELEC-TIVES from 300s & 400s) THEOLOGY or Elective	Philosophy Social Science THEOLOGY (2 ELECTIVES)

## FACULTY OF COMMERCE

The inauguration of the Faculty of Commerce at Loyola in 1948 marked a significant modernization of the traditional philosophy of education. Areas of concentration in Business and Accounting were set up to meet the demands for orientation in the field of Commerce. Loyola has, at present, an Honours course in Economics and Majors in Accountancy, Business Administration and Economics. The Honours programme is designed for students who want a deeper and more extensive knowledge in their field of concentration. All graduates of the Faculty of Commerce can qualify for post-graduate or professional studies. The Faculty has retained all the necessary disciplines essential to a broad education. This would include courses in English and Philosophy. The general requirements for admission and the standards are similar to those in the other faculties. At the end of the first year the student decides the area in which he will concentrate. Students who choose to follow a Major must maintain a yearly average of 50%; those in the Honours programme must maintain a yearly average of 65%, and not less than 65% in any course in their field of concentration. All candidates must have a minimum of twenty-two recognized academic credits to receive the degree. All inquiries should be made in writing to the Dean of Commerce.



## THE BACHELOR OF COMMERCE PROGRAMMES

MAJORS			HONOURS
ACCOUNTANCY	BUSINESS ADMINISTRATION	ECONOMICS	ECONOMICS
<b>FIRST YEAR</b> Accounting 101 Economics 100 English 101 French Mathematics 101	Accounting 101 Economics 100 English 101 French Mathematics 101	Accounting 101 Economics 100 English 101 French Mathematics 101	Accounting 101 Economics 100 English 101 French Mathematics 101
<b>SECOND YEAR</b> Accounting 202 Business 201 Business 204 French Mathematics 202-203 Philosophy	Accounting 202 Business 204-215 Business 207 French Philosophy Theology	Accounting 202 Economics 210 Economics 221 French Philosophy Elective	Economics 260 Economics 271 French Philosophy Elective Elective
<b>THIRD YEAR</b> Accounting 303 Accounting 306 Philosophy Theology Elective	Business 301 Business 305 Business 308 Business 310-320 Elective	Economics 304 Economics 306 Philosophy Theology Elective	Economics 304 Economics 366 Philosophy Theology Elective
<b>FOURTH YEAR</b> Accounting 403-404 Business 301 English Theology (2nd course) Elective Elective	Business English Philosophy Theology (2nd course) Elective Elective	Economics El. English Theology (2nd course) Elective Elective Elective	Economics 461 or 464 or 480 Economics El. (2) Theology (2nd course) Elective Elective

## FACULTY OF ENGINEERING

The overall objectives of the Faculty of Engineering are the growth and development of the student into a self-identifiable person and the acquisition by him of the knowledge upon which to build his career. In the concrete, these goals are proposed to the student as a personal search for excellence and the forming of himself to manage industry, whether technically or administratively. While the subjects of the curriculum — technology, science, humanities, professional practice — have to be presented as discrete disciplines, the Faculty seeks at all times to make the student aware that he must integrate them into his personality so that they become the foundation for supporting his chief function in society — the making of decisions.

## FACULTY OF SCIENCE

Beginning with the academic year 1967-68, the Science Faculty introduced several significant programme changes.

The freshman year, traditionally common to all departments, will be so maintained as far as possible. However, at the beginning of the second semester, each student will be asked to choose one of three electives (half courses): Biology 101, Geotechnical Science 202, Mathematics 121. At the beginning of the sophomore year, the student must definitely commit himself to a particular departmental programme, choosing one of biology, chemistry, geotechnical science, mathematics, physics, psychology. Within each department programmes at several levels will be offered, as follows :

1. A newly introduced B.Sc. programme, designated a general course with concentration, and designed for students who do not plan to continue their scientific training beyond the Bachelor level. Offered by biology, chemistry, geotechnical science, mathematics and physics.
2. A major programme, leading to a B.Sc. with greater concentration in the chosen field. Designed for students

capable and willing to concentrate in a designated area, students who may develop latent talents and may, perhaps with the help of a qualifying year after graduation, continue to higher degrees. Offered in biology, chemistry, geotechnical science, mathematics, physics and psychology.

NOTE that the Biology-Chemistry programme given in previous years is being phased out beginning this year; students wishing to enter medical school after graduation will register as Biology majors.

3. An honours programme in chemistry, mathematics, physics. Those completing this exacting programme usually proceed to graduate school and advanced degrees. Applicants must have completed their freshman year at Loyola with approximately 70% average and no failures (or comparable standing in Grade 12).

Honour students must maintain a yearly average that does not drop below 65% and obtain not less than 65% in each course of their field of concentration.

It should be noted (a) that the student load in the above programmes varies in quantity rather than quality, (b) the programmes have been arranged with increasing work loads to permit students to obtain good marks in the courses in which they are registered; failure to maintain a satisfactory standard will result in the student being asked to drop to a less concentrated programme, (c) each department is responsible for deciding the category which a student may enter and in which he may continue; no student may claim a right to proceed in a programme against the judgment of the department concerned.

## THE BACHELOR OF SCIENCE PROGRAMMES

M A J O R S					
YEAR	BIOLOGY	CHEMISTRY	GEOTECHNICAL SCIENCE	MATHEMATICS	PHYSICS
FIRST	Chemistry 101 Chemistry 102 French Mathematics 120 Mathematics 131 Physics 101 Theology One Elective (in second term) from: Biology 101 Geot. Sc. 202 Mathematics 121	S  A  M  E	S  A  M  E	S  A  M  E	S  A  M  E
SECOND	Biology 211 Biology 221 Chemistry 221 Chemistry 222 Mathematics 202 Philosophy Theology	Chemistry 212 Chemistry 221 Chemistry 222 Chemistry 231 Mathematics 232 Philosophy Theology	Chemistry 211 Chemistry 212 Geot. Sc. 203 Geot. Sc. 204 Geot. Sc. 205 Geot. Sc. 303 Geot. Sc. 304 Mathematics 121 Philosophy Theology	Mathematics 221 Mathematics 232 One from: Mathematics 201 Mathematics 240 Philosophy Physics 205 Theology	Chemistry 231 Mathematics 231 Mathematics 221 Physics 205 Philosophy Theology
THIRD	Biology 301 Biology 302 Biology 303 Biology 311 Biology 321 Philosophy	Chemistry 211 Chemistry 313 Chemistry 323 Chemistry 324 Chemistry 333 English Philosophy Theology (if necessary)	Chemistry 231 Engineering 802 Geot. Sc. 305 Geot. Sc. 307 Geot. Sc. 401 Geot. Sc. 403 Geot. Sc. 404 Geot. Sc. 409 Philosophy Physics 205	Mathematics 234 Mathematics 331 Mathematics 320 Philosophy Physics 311	Mathematics 234 Philosophy Physics 301 Physics 304 Physics 307 Science Elective
FOURTH	Biology 401 Biology 402 Biology 403 or 404 or 405 or 414 English Philosophy or Theology	Chemistry 332 Chemistry 334 Chemistry 425 Chemistry 426 Philosophy or Theology	English Geot. Sc. 310 Geot. Sc. 405 Geot. Sc. 406 Geot. Sc. 407 Geot. Sc. 408 Geot. Sc. 410 Philosophy or Theology	English Mathematics 321 Mathematics 330 Mathematics 490 One from: Mathematics 401, 440, 460, 470- 471, 480 Philosophy or Theology	English Physics 302 Physics 311 Philosophy or Theology One Elective



capable and willing to concentrate in a designated area, students who may develop latent talents and may, perhaps with the help of a qualifying year after graduation, continue to higher degrees. Offered in biology, chemistry, geotechnical science, mathematics, physics and psychology.

NOTE that the Biology-Chemistry programme given in previous years is being phased out beginning this year; students wishing to enter medical school after graduation will register as Biology majors.

3. An honours programme in chemistry, mathematics, physics. Those completing this exacting programme usually proceed to graduate school and advanced degrees. Applicants must have completed their freshman year at Loyola with approximately 70% average and no failures (or comparable standing in Grade 12).

Honour students must maintain a yearly average that does not drop below 65% and obtain not less than 65% in each course of their field of concentration.

It should be noted (a) that the student load in the above programmes varies in quantity rather than quality, (b) the programmes have been arranged with increasing work loads to permit students to obtain good marks in the courses in which they are registered; failure to maintain a satisfactory standard will result in the student being asked to drop to a less concentrated programme, (c) each department is responsible for deciding the category which a student may enter and in which he may continue; no student may claim a right to proceed in a programme against the judgment of the department concerned.

## THE BACHELOR OF SCIENCE PROGRAMMES

M A J O R S					
YEAR	BIOLOGY	CHEMISTRY	GEOTECHNICAL SCIENCE	MATHEMATICS	PHYSICS
FIRST	Chemistry 101 Chemistry 102 French Mathematics 120 Mathematics 131 Physics 101 Theology One Elective (In second term) from: Biology 101 Geot. Sc. 202 Mathematics 121	S A M E	S A M E	S A M E	S A M E
SECOND	Biology 211 Biology 221 Chemistry 221 Chemistry 222 Chemistry 231 Mathematics 202 Philosophy Theology	Chemistry 212 Chemistry 221 Chemistry 222 Chemistry 231 Mathematics 232 Philosophy Theology	Chemistry 211 Chemistry 212 Geot. Sc. 203 Geot. Sc. 204 Geot. Sc. 205 Geot. Sc. 303 Geot. Sc. 304 Mathematics 121 Philosophy Theology	Mathematics 221 Mathematics 232 One from: Mathematics 201 Mathematics 240 Philosophy Physics 205 Theology	Chemistry 231 Mathematics 231 Mathematics 221 Physics 205 Philosophy Theology
THIRD	Biology 301 Biology 302 Biology 303 Biology 311 Biology 321 Philosophy	Chemistry 211 Chemistry 313 Chemistry 323 Chemistry 324 Chemistry 333 English Philosophy Theology (if necessary)	Chemistry 231 Engineering 802 Geot. Sc. 305 Geot. Sc. 307 Geot. Sc. 401 Geot. Sc. 403 Geot. Sc. 404 Geot. Sc. 409 Philosophy Physics 205	Mathematics 234 Mathematics 331 Mathematics 320 Philosophy Physics 311	Mathematics 234 Philosophy Physics 301 Physics 304 Physics 307 Science Elective
FOURTH	Biology 401 Biology 402 Biology 403 or 404 or 405 or 414 English Philosophy or Theology	Chemistry 332 Chemistry 334 Chemistry 425 Chemistry 426 Philosophy or Theology	English Geot. Sc. 310 Geot. Sc. 405 Geot. Sc. 406 Geot. Sc. 407 Geot. Sc. 408 Geot. Sc. 410 Philosophy or Theology	English Mathematics 321 Mathematics 330 Mathematics 490 One from: Mathematics 401, 440, 460, 470- 471, 480 Philosophy or Theology	English Physics 302 Physics 311 Philosophy or Theology One Elective

## THE BACHELOR OF SCIENCE PROGRAMMES

YEAR	MAJOR	STRONG MAJOR	HONOURS		
	PSYCHOLOGY	PHYSICS	CHEMISTRY	MATHEMATICS	PHYSICS
FIRST	Chemistry 101				
	Chemistry 102				
	French	S	S	S	S
	Mathematics 120	A	A	A	A
	Mathematics 131	M	M	M	M
	Physics 101	E	E	E	E
	Theology				
	One Elective (in second term) from: Biology 101 Geot. Sc. 202 Mathematics 121				
SECOND	Statistics 202	Mathematics 231	Chemistry 211	Mathematics 220	Mathematics 231
	Chemistry 221	Mathematics 234	Chemistry 212	Mathematics 231	Mathematics 234
	Chemistry 222	Philosophy	Chemistry 221	Mathematics 201	Philosophy
	English	Physics 205	Chemistry 222	or 240	Physics 205
	Philosophy	Physics 220	Chemistry 231	Mathematics 234	Physics 220
	Psychology 201	Physics 301	Mathematics 232	Philosophy	Physics 301
	Theology	Physics 309	Philosophy	Physics 205	Physics 309
			Theology		
THIRD	Biology 331	Philosophy	Chemistry 313	Mathematics 320	Philosophy
	Philosophy	Physics 306 or 302	Chemistry 323	Mathematics 321	Physics 306 or 302
	Psychology 305	Physics 310 or 304	Chemistry 324	Mathematics 330	Physics 310 or 302
	Two Electives	Physics 304	Chemistry 332	Philosophy	Physics 310 or 302
		Physics 307	Chemistry 333	Physics 311	Physics 304
		Physics 320	Chemistry 334	Theology	Physics 307
		Theology	English		Physics 320
			Mathematics 332		Physics 410
FOURTH	Philosophy or	English	Chemistry 425	English	English
	Theology	Physics 304 or 310	Chemistry 426	Mathematics 421	Geot. Sc. 304 or 310
	Psychology 401	Physics 305	Chemistry 435	Mathematics 430	Physics 305
	Three Electives	Physics 403	Chemistry 436	Mathematics 490	Physics 403
		Physics 306	Chemistry 437	One or two from:	Physics 404 or 306
		Philosophy or	Chemistry 438	Mathematics 401,	Physics 408
		Theology	Chemistry 450	440, 460, 470-	Physics 411
			Philosophy or	471, 480	Physics 420
			Theology	Philosophy or	Philosophy or
				Theology	Theology

## THE BACHELOR OF SCIENCE PROGRAMMES

GENERAL					
YEAR	BIOLOGY	CHEMISTRY	GEOTECHNICAL SCIENCE	MATHEMATICS	PHYSICS
FIRST	Chemistry 101				
	Chemistry 102				
	French	S	S	S	S
	Mathematics 120	A	A	A	A
	Mathematics 131	M	M	M	M
	Physics 101	E	E	E	E
	Theology				
	One Elective (in second term) from: Biology 101 Geot. Sc. 202 Mathematics 121				
SECOND	Biology 211 or 221	Chemistry 212	Chemistry 211	Mathematics 221	Mathematics 232
	Chemistry 221	Chemistry 221	Chemistry 212	Mathematics 232	Philosophy
	Chemistry 222	Mathematics 232	Geot. Sc. 203	Philosophy	Physics 201
	Mathematics 202	Philosophy	Geot. Sc. 204	Theology	Physics 205
	Philosophy	Theology	Geot. Sc. 205	One Elective	One Elective from: Biology Chemistry 231 Geot. Sc.
	Theology		Mathematics 121		
			Philosophy		
			Theology		
THIRD	Biology 301	Chemistry 231	Chemistry 231	English	Philosophy
	Biology 302	Chemistry 222	Geot. Sc. 305	Mathematics 201	Physics 307
	Biology 303	Chemistry 314	Geot. Sc. 401	Mathematics 234	Physics 311
	Biology 311 or 321	English	Geot. Sc. 404	Mathematics 240	Sc. Elective (1)
	Philosophy	Philosophy	Geot. Sc. 405	Philosophy	Theology
		One Elective	Philosophy		
			One Science Elective		
FOURTH	Biology 401	Chemistry 313	English	Mathematics 320	English
	Biology 402	Chemistry 324	Geot. Sc. 406	Mathematics 331	Philosophy or
	English	Philosophy or	and either	Philosophy or	Theology
	Philosophy or	Theology	(a), (b), or (c)	Theology	Physics 302
	Theology	One Elective	(a) Geot. Sc. 407	One Elective	Physics 304
			One Science Elective		Sc. Elective (2)
			(b) Geot. Sc. 310		
			Geot. Sc. 409		
			One Science Elective		
			(c) Geot. Sc. 303		
			Geot. Sc. 410		
			Philosophy or		
			Theology		



## ACCOUNTANCY



R. L. McGraw, Assistant Professor (Chairman)  
 L. M. Bessner, Associate Professor  
 J. R. Hanrahan, Assistant Professor  
 D. F. MacDonald, Assistant Professor  
 H. Dauderis, Lecturer  
 E. C. Whitehall, Sessional Lecturer

### Courses leading to a B.Comm. with a Major in Accountancy

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
ACCOUNTING 101 Economics 100 English 101 French Mathematics 101	ACCOUNTING 202 Business 201 Business 204 French Maths. 202-203 Philosophy	ACCOUNTING 303 ACCOUNTING 306 Philosophy Theology One Elective*	ACCOUNTING 403-404 Business 301 English Theo. (2nd course) Two Electives*

\*Elective courses must be approved by the department.

Students holding the Bachelor of Commerce degree with a Major in Accountancy from Loyola College are usually exempted on recommendation, from the intermediate examinations of the Institute of Chartered Accountants of Quebec. A recommendation requires an average of 65% in the final 2 years of accounting courses. They are also usually exempted from three of the five years of apprenticeship required for the C.A. certificate.

All other graduates of the College who wish to enter the Accounting Profession but who have not followed the curriculum (as described above) for an Accountancy Major, may do so by successfully completing a prescribed course of training which normally consists of three years of evening courses in Accountancy, with at least two years of service in an approved office. For additional information, please consult the Chairman of the Department of Accountancy.

### 101 Introductory Accounting. Full Course.

Staff

Required for all first year Commerce students. An introductory study of accounting principles and practice as related to proprietorships, partnerships and limited companies.  
 Text: To be announced.

### 202 Intermediate Accounting. Full Course.

Staff

Prerequisite: Accounting 101. Required for all second year Commerce students. A study of the purpose, theory and practical development of financial accounting information. Emphasis is placed on reporting to shareholders and investors, and the significance of the organizational and corporate structure. Financial statement and funds flow analyses are included.

Text: Finney, H.A., and Miller, H.E., Principles of Accounting: Intermediate, Sixth Edition, (Canadian Edition, prepared by K.F. Byrd), Prentice-Hall, Inc.

### 303 Auditing and Investigation. Full Course.

E. C. Whitehall  
 Introduction to auditing; classification and scope of audits; internal control; legal and moral responsibilities of auditors; auditing standards and the role of the auditor in the business community; advanced auditing and investigations.

Texts: Stettler: Auditing Principles, Prentice Hall; Canada Corporations Act, Queen's Printer; Bulletins of the Canadian Institute of Chartered Accountants.

### 305 Managerial Accounting. Full Course.

See Business 305.

### 306 Advanced Financial Accounting. Full Course.

R. L. McGraw and D. F. MacDonald

Prerequisite: Accounting 202. For accountancy majors. Sequential to Accounting 202. Emphasizes specialized areas, with a related examination of the theoretical structure of accounting and current problems.

Text: Finney, H.A., and Miller, H.E., Principles of Accounting: Advanced, Fifth Edition, Prentice-Hall, Inc.

### 310 Introductory Accounting Analysis, Finance and Taxation. Full Course.

L. M. Bessner and R. L. McGraw

An optional course available to students in the Faculties of Arts, Science and Engineering who have not previously studied accounting at the university level. An introduction to the accounting method and to the analysis of financial statements and funds flow, with a related examination of the areas of costing, business finance and taxation.

Text: to be announced.

### 403 Cost Accounting. Half Course. (First Term)

R. L. McGraw

Prerequisite: Accounting 202. For accountancy majors.

The development and interpretation of cost accounting information as a tool of business management.

Text: to be announced.

### 404 Taxation: Half Course. (Second Term)

L. M. Bessner

Prerequisite: Accounting 101. For accountancy majors, and also available to other students with departmental approval. The Canadian taxation structure as related to theoretical and practical problems of income and estate taxes; executorship accounting and an introduction to estate planning are included; other areas of taxation are surveyed.

Text: to be announced.

## CENTRE FOR AFRICAN STUDIES

Donald C. Savage, Associate Professor & Director (History)  
David Porter, Assistant Professor (Political Science)  
R. Henry, Assistant Professor (Sociology)

The Centre for African Studies was created by the Senate of Loyola College in order to co-ordinate African research and course work on the campus. The Centre offers courses in conjunction with other departments (e.g. History, Political Science) and students will register and receive credit for these courses as History or Political Science courses.

### HISTORY

#### 209 Introduction to the History of Africa. Full Course.

D. C. Savage

Africa before the Europeans; Islamic and European conquests; slavery, resistance movements and the rise of nationalism.

Text: Rotberg, *Political History of Tropical Africa*.

Lectures: 3 hours per week for two terms.

#### 304 Nationalism in Africa. Full Course.

D. C. Savage

Resistance to Europeans, intellectual origins of African nationalism (Blyden, Du Bois, Garvey, Padmore, Césaire, Senghor), independent churches, the rise of nationalist political parties, nationalism after independence.

Texts: Kohn & Sokolsky, *African Nationalism in the 20th Century*; Hodgkin, *Nationalism in Colonial Africa*; Sithole, *African Nationalism*. (Given 1969-1970)

### POLITICAL SCIENCE

#### 219 The Stages of Political Development. Full Course.

David Porter

An analysis of factors causing political systems to change. Examination of the traits of each of four stages from national unification to the politics of abundance.

Text: Organski, *The Stages of Political Development*.

Lectures: 3 hours per week for two terms.

#### 221 The Politics of Race. Full Course.

David Porter

A comparative study of the racial factor in contemporary politics with special emphasis on Southern Africa, colonial Algeria and the United States.

Texts: Van den Berghe, *South Africa: A Study in Conflict*; Fanon, *The Wretched of the Earth*; The Autobiography of Malcolm X.

Lectures: 3 hours per week for two terms.

#### 325 African Government and Politics. Full Course.

David Porter

Colonialism, imperialism and the rise of nationalism government and politics of the independent African states.

Lectures: 3 hours per week for two terms.

#### Canadian University Service Overseas (CUSO)

CUSO is a national organization which supplies volunteer manpower to developing countries. There are presently programmes in Africa, Asia, and Latin America. Interested students should attempt to include in their programme courses relevant to the area to which they might wish to go. Those planning to go to Africa would be advised to take one of the history or political science courses offered by the Centre, in particular History 209 or Political Science 325. Faculty member in charge: J. W. Moore (Political Science).



## BIOLOGY

Rev. S. Drummond, S.J., Professor (Chairman)  
 Rev. R. T. Cronin, S.J., Assistant Professor  
 K. S. Dhindsa, Assistant Professor

### Courses leading to a B.A. with a Major in Biology-Chemistry. (a)

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Discontinued	Discontinued	BIOLOGY 304 BIOLOGY 305 CHEMISTRY 212 Mathematics 202 Physics 101 One Elective	BIOLOGY 406 BIOLOGY 408 CHEMISTRY 221 CHEMISTRY 222 English 289 Philosophy

### Courses leading to a B.Sc. with a Major in Biology-Chemistry. (a)

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Discontinued	Discontinued	BIOLOGY 304 BIOLOGY 305 CHEMISTRY 323 CHEMISTRY 324 Mathematics 202 Philosophy	BIOLOGY 406 BIOLOGY 408 English 289 Philosophy or Theology Psychology Social Science

### Courses leading to a B.Sc. with a Major in Biology. (b)

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101 Chemistry 102 French Mathematics 120 Mathematics 131 Physics 101 Theology *One Elective (in second term) from Biology 101 Geot. Sc. 202 Mathematics 121	BIOLOGY 211 BIOLOGY 221 Chemistry 221 Chemistry 222 Mathematics 202 Philosophy Theology	BIOLOGY 301 BIOLOGY 302 BIOLOGY 303 BIOLOGY 311 BIOLOGY 321 Philosophy	BIOLOGY 401 BIOLOGY 402 BIOLOGY 403 or 404 or 405 or 414 English 289 Philosophy or Theology

### Courses leading to a General B.Sc. with a concentration in Biology. (b)

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101 Chemistry 102 French Mathematics 120 Mathematics 131 Physics 101 Theology *One Elective (in second term) from Biology 101 Geot. St. 202 Mathematics 121	BIOLOGY 211 or 221 Chemistry 221 Chemistry 222 Mathematics 202 Philosophy Theology	BIOLOGY 301 **BIOLOGY 302 BIOLOGY 303 BIOLOGY 311 or 321 Philosophy	**BIOLOGY 401 **BIOLOGY 402 English 289 Philosophy or Theology

\*Those students wishing to continue in Biology must choose the Biology 101 Elective.

\*\*Another course may be substituted with the approval of the department.

- (a) The Biology-Chemistry Major (for Arts and Science) will be discontinued in the third year after 1968-69, and in the fourth year after 1969-70.
- (b) The B.Sc. Biology Programmes will be offered in first and second years in 1968-69, in third year in 1969-70, and in fourth year in 1970-71. The Department reserves the right to make any necessary changes in the courses to be offered.

The Biology Major Programme will prepare the student for graduate, medical and dental studies.

The General Biology Programme will prepare the student for technical positions in government, industry, hospital and university laboratories and research.

### 101 Introduction to Biology. Half Course. K. S. Dhindsa

A study of the fundamental principles of Biology that are common to all living organisms. The course, or its equivalent, is a prerequisite for all other courses in the Biology Programmes. Lectures : three hours per week in the second semester. Text : Nelson, Robinson, Boolootian : Fundamental Concepts of Biology, Wiley.

### 131 Fundamentals of Biology. Full Course. K. S. Dhindsa

A series of lectures designed to acquaint the general Arts student with those fundamental principles of life which are the basis for an understanding of the structure and function of the living body. Lectures : three hours per week for two terms. Text : Nelson, Robinson, Boolootian : Fundamental Concepts of Biology, Wiley.

### 211 Avascular Botany. Full Course. K. S. Dhindsa

A survey of the taxonomy, morphology, physiology, distribution and evolution of the important representatives of the avascular plants. Lectures : two hours per week for two terms. Laboratory : three hours per week for two terms. Text : Wilson and Loomis: Botany, Holt, Rinehart and Winston.

### 221 Invertebrate Zoology. Full Course. R. T. Cronin

A study of the classification, anatomy and physiology of the invertebrate phyla, with special reference to their evolution, ecology and economic status. Lectures : two hours per week for two terms. Laboratory : three hours per week for two terms. Text : Meglitsch : Invertebrate Zoology, Oxford.

### \*\*\*301 General Biochemistry. Full Course.

### \*\*\*302 Introductory Embryology. Full Course.

### \*\*\*303 General Physiology. Full Course.

### 304 Vertebrate Zoology. Full Course. S. Drummond

The course includes a study of the characteristics and classification of the vertebrates. The important type vertebrates are studied in detail, particular stress being laid on embryological development, structure and function. Lectures : two hours per week for two terms. Text : Storer and Usinger : General Zoology, McGraw-Hill.

**305 Vertebrate Zoology Laboratory. Half Course.**

S. Drummond

The course comprises a detailed study of the structure of amphioxus, dogfish, frog and rabbit. The course is so conducted that, by carefully executed dissections and drawings, the student may be able to trace the main features of organization from the lower to the higher vertebrates.

Laboratory : six hours per week for two terms.

Texts : Storer and Usinger : General Zoology, McGraw-Hill.

Craigie : Bensley's Practical Anatomy of the Rabbit, Univ. of Toronto Press.

**\*\*\*311 Vascular Botany. Full Course.****\*\*\*321 Comparative Vertebrate Anatomy. Full Course.****331 Introductory Neurology. Full Course.**

S. Drummond

A study of the nervous system of the vertebrates, especially the mammal. The course is offered to students in the Department of Psychology who intend to continue in physiological psychology.

Lectures : two hours per week for two terms.

Laboratory : three hours per week for two terms.

Texts : Gardner: Fundamentals of Neurology, Saunders.

Netter: Nervous System, Ciba.

**\*\*\*401 Comparative Histology. Full Course.****\*\*\*402 Genetics. Full Course.****\*\*\*403 Cytology. Full Course.****\*\*\*404 Radiation Biology. Full Course.****\*\*\*405 Biophysics. Full Course.****406 Histology. Half Course.**

S. Drummond

An introductory study of the cell and the general tissues. The course is designed to explain in detail the structure and function of the basic tissues and to introduce the various combinations of these in the special tissues of the adult body.

Lectures : two hours per week for the second term.

Laboratory : three hours per week for the second term.

Text : Stiles : Handbook of Histology, McGraw-Hill.

**408 Genetics. Half Course.**

R. T. Cronin

Theory. A series of lectures designed to explain the principles of heredity and variation, the classical and modern concept of the gene, DNA, RNA and the genetic code, developmental and population genetics, and eugenics.

Laboratory. A selection of experiments to demonstrate the fundamental laws of genetics.

Lectures : two hours per week for the first term.

Laboratory : three hours per week for the first term.

Text : Srb, Owen and Edgar : General Genetics, Freeman.

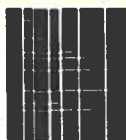
**\*\*\*414 Bacteriology. Full Course.**

\*\*\*This course will not be offered in 1968-69.



## BUSINESS ADMINISTRATION

J. R. Hanrahan, Assistant Professor (Chairman)  
 L. J. Boyle, Assistant Professor  
 P. Kawaja, Assistant Professor  
 H. B. Ripstein, Assistant Professor  
 W. R. Bannister, Lecturer



### Courses leading to a B.Comm. with a Major in Business Administration

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Accounting 101	Accounting 202	BUSINESS 301	BUSINESS EL.
Economics 100	BUSINESS 204-215	BUSINESS 305	English
English	BUSINESS 207	BUSINESS 308	Philosophy
French	French	BUSINESS 310-320	Theo. (2nd course)
Mathematics 101	Philosophy	One Elective	Two Electives
	Theology		

- 1) Elective courses must be approved by the Department.
- 2) Some courses may be restricted to Business Majors.

### 201 Commercial Law. Full Course.

Laws of contracts, sales agency, partnership, company law and negotiable instruments.

### 204 Business Economics. Half Course.

This course consists of three main elements: (1) an explanation of the fundamental theoretical and analytical tools of economics; (2) a review of empirical studies and illustrations of the applications of economic analysis in management; and (3) cases involving actual managerial situations which require the use of analysis.

Prerequisite: Economics 100.

### 207 Mathematical Analysis for Management. Full Course.

An introduction to differentiation and integration, including applications of the derivative to business problems. Emphasis is placed on probabilistic models, linear systems and linear programming. The application of these techniques to business is demonstrated.

### 215 The Canadian Economic Environment. Half Course.

The objective of this course is to provide students with an understanding of the factors that determine the economic environment of business in Canada. It includes a study of income determination theory, monetary and fiscal policy, trade and commercial policy, and the impact of industrialization and foreign investment on the Canadian economy.

### 301 Finance. Full Course.

A study of the corporate investment in assets and the source of funds available to finance this investment. Emphasis is placed on statement analysis and short term financing. The use of preferred and common stock and long term debt is examined from the viewpoint of the corporation.

Prerequisite: Accounting 101.

### 305 Management Control. Full Course.

This course is designed to develop, through verbal and written analyses of managerial control cases, understanding and skill in the use of financial data in business. An examination is made of current standards of financial reporting, but emphasis is placed on the internal use of such data as a managerial information tool. Requirements include the submission of a major term paper.

Prerequisite: Accounting 202 or departmental approval.

### 308 Business Statistics. Full Course.

This course is designed to acquaint the student with statistical methods applicable to business. Curve fitting, variation, correlation and regression are included.

### 310 Administration of the Firm. Half Course.

An introduction to the basis of management through a study of principles, and a brief inquiry into the major foundations of management-authority and responsibility. The managerial functions of planning, organizing, staffing, direction and control are analyzed and described. Extensive use is made of cases.

### 320 Marketing Management. Half Course.

The purpose of this course is to outline the scope of marketing and the nature of the marketing manager's job. Cases are used to show the interrelations among marketing functions and to enable students to learn to think in terms of a coordinated approach in developing a marketing program.

### 411 Business Policy. Half Course. (Second Term only)

This course is designed to acquaint fourth year students with major issues of company policy as they confront top management of the enterprise. It is intended to give some experience through analysis of general management cases, in diagnosing problems and formulating policies and programs of action.

### 417 Operations Analysis. Full Course.

A study of operations research techniques such as queueing theory, inventory theory, linear programming and the Monte Carlo method, and the application of these to marketing, production and administrative problems.

Prerequisite: Business 207.

**430 Investment management. Half Course. (First Term)**

This course is designed to develop an understanding of the operations of major financial markets as well as the methods used in the evaluation of the various types of securities. A major portion of the course is devoted to the principles of portfolio management.

**440 Advanced Financial Management. Half Course. (Second Term)**

This course is designed as an extension of Business 301. Advanced techniques of financial analysis are studied and discussion of current financial literature is an integral part of the course. Comprehensive cases are analyzed in detail.

Prerequisite: Business 301;

To qualify for admission to this course a "B" average in Business 301 is required.

**450 Marketing Research. Full Course.**

The objective of this course is to train students in the use of marketing research techniques. The place of research in the marketing process, the role of models and the development of measurements are discussed. Emphasis is placed on planning and executing marketing studies and on the applications of marketing research.

**460 Production. Full Course.**

An analytical approach to the allocation of resources and the scheduling of production. Quantitative analysis is used in the solution of problems in these areas.

**465 Industrial Relations. Full Course.**

See Economics 348.

**CHEMISTRY**

Rev. A. Graham, S.J., Associate Professor (Chairman)

K. Ekler, Associate Professor

D. McElcheran, Associate Professor

T. Nogrady, Associate Professor

M. Doughty, Assistant Professor

G. J. Trudel, Assistant Professor

R. H. Zienius, Assistant Professor

M. Baldwin, Sessional Lecturer

G. Uihlein, Sessional Lecturer

**Courses leading to an Honours B.Sc. in Chemistry**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
CHEMISTRY 101	CHEMISTRY 211	CHEMISTRY 313	CHEMISTRY 425
CHEMISTRY 102	CHEMISTRY 212	CHEMISTRY 323	CHEMISTRY 426
French	CHEMISTRY 221	CHEMISTRY 324	CHEMISTRY 435
Mathematics 131	CHEMISTRY 222	CHEMISTRY 332	CHEMISTRY 436
Mathematics 120	CHEMISTRY 231	CHEMISTRY 333	CHEMISTRY 437
Physics 101	Mathematics 232	CHEMISTRY 334	CHEMISTRY 438
Theology	Philosophy	English	CHEMISTRY 450
One Elective (in second term) from:	Theology	Mathematics 332	Philosophy or Theology
Biology 101		Philosophy	
Geot. Sc. 202		Physics 205	
Mathematics 121		(theory)	

**Courses leading to a B.Sc. with a Major in Chemistry**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
CHEMISTRY 101	CHEMISTRY 212	CHEMISTRY 211	CHEMISTRY 332
CHEMISTRY 102	CHEMISTRY 221	CHEMISTRY 313	CHEMISTRY 334
French	CHEMISTRY 222	CHEMISTRY 323	CHEMISTRY 425
Mathematics 131	CHEMISTRY 231	CHEMISTRY 324	CHEMISTRY 426
Mathematics 120	Mathematics 232	CHEMISTRY 333	Philosophy
Physics 101	Philosophy	English	or Theology
Theology	Theology	Philosophy	
One Elective (in second term) from:			
Biology 101			
Geot. Sc. 202			
Mathematics 121			

**Courses leading to a B.Sc. in Chemistry**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
CHEMISTRY 101	CHEMISTRY 212	CHEMISTRY 231	CHEMISTRY 313
CHEMISTRY 102	CHEMISTRY 221	CHEMISTRY 222	CHEMISTRY 324
French	Mathematics 232	CHEMISTRY 314	Philosophy
Mathematics 131	Philosophy	English	or Theology
Mathematics 120	Theology	Philosophy	One Elective
Physics 101		One Elective	
Theology			
One Elective (in second term) from:			
Biology 101			
Geot. Sc. 202			
Mathematics 121			

**101 General Chemistry. Full Course.** M. Doughty, K. Ekler, G. J. Trudel, R. H. Zienius

Principles of Chemistry. Molecular and Atomic theories. Balancing Equations. Valence. Oxidation-reduction. Nature and concentrations of solutions. Chemical Equilibrium, Ionization constants. Solubility



product. Common ion effect. pH. Formation and dissolution of precipitates. Complex ions. Theory of acids and bases. Periodic table.

Lectures: 3 hours per week for two terms.

Texts: Sisler, *College Chemistry*, 2nd ed., Macmillan. Sorum, *Introduction to Semimicro Qualitative Analysis*, 3rd ed., Prentice-Hall. Schaum, *Theory and Problems for Students of College Chemistry*, 4th ed., Schaum.

### 102 General Chemistry. Half Course. M. Doughty,

G. J. Trudel, G. Uihlein, R. H. Zienius

An introductory course designed to improve manipulative ability in the laboratory. A first semester of inorganic preparations and volumetric titrations is followed by one devoted entirely to qualitative analysis.

Lab.: 3 hours per week for two terms.

Text: Sorum, *Semimicro Qualitative Analysis*, 3rd ed., Prentice-Hall.

### 211 Inorganic Chemistry and Valence Theory. Half Course.

K. Ekler

Atomic and Molecular Structure. Valence. Electro-negativity. Bond angles and lengths. Coordination chemistry. Chemical periodicity.

Lectures: one hour per week for two terms.

### 212 Elementary Inorganic Quantitative Analysis. Full Course.

G. J. Trudel, R. H. Zienius

Theoretical aspects of gravimetric and volumetric analysis. Acid-base and oxidation-reduction titrations. Determination of ores by volumetric methods. Theory of precipitation and complex formation analysis.

Prerequisite: Chemistry 101.

Lectures: 1 hour per week for two terms.

Lab.: 3 hours per week for two terms.

Text: Kolthoff and Sandell, *Quantitative Inorganic Analysis*. Macmillan.

### 221 Organic Chemistry Theory. Full Course. M. Doughty

Introductory course in nomenclature, type reactions and synthesis of aliphatic, alicyclic and aromatic hydrocarbons and their derivatives. Theoretical aspects including resonance, orbital theory and simpler reaction mechanisms are introduced.

Prerequisite: Chemistry 101.

Lectures: 3 hours per week for two terms.

Texts: English and Cassidy, *Principles of Organic Chemistry*. McGraw-Hill. Werner Herz. *The Shape of Carbon Compounds*, Benjamin.

### 222 Organic Chemistry Laboratory. Half Course.

R. H. Zienius, A. Graham, M. Baldwin

A systematic preparation of simpler organic compounds; the theory of fundamental techniques such as steam distillation; filtration; the determination of physical constants. To be taken in conjunction with Chemistry 221.

Prerequisite: Chemistry 102.

Lab.: 3 hours per week for two terms.

Text: Cason and Rapoport, *Basic Experimental Organic Chemistry*, Prentice-Hall.

### 231 Introductory Physical Chemistry. Full Course.

R. H. Zienius

The gaseous state and elementary kinetic theory; chemical thermodynamics; an introduction to the first and second laws, Thermochemistry, Free energy and activity, Thermodynamics of solutions; homogeneous equilibrium; Phase rule; Electrolytic solutions; Reaction kinetics, Maxwell-Boltzman distribution and collision theory; Introductory quantum theory of atomic and molecular spectra and structure; Crystalline state; Liquid state; Surface phenomena.

Lectures: 3 hours per week for two terms.

Text: Hamill, Williams, and Mackay, "Principles of Physical Chemistry", Prentice-Hall, 2nd Edition.

### 313 Instrumental Analysis. Full Course. K. Ekler and Staff

A study of modern instrumental methods in inorganic and organic analysis. Electro-chemical absorption, optical and radio-chemical methods, mass spectrometry, chromatography, NMR and X-ray diffraction are discussed.

Prerequisite: Chemistry 212, 221, 231.

Lectures: 2 hours per week, first semester.

Lab.: 3 hours per week, second semester.

### 314 Industrial Chemistry. Half Course. R. H. Zienius

The purpose of this course is to give the student an insight into the operations of the chemical industry in Canada. It includes: a brief history of the chemical industry in Canada; an outline of how industrial processes are developed; and a description of some of the more important processes now in use, as exemplified in the petroleum, petrochemicals, plastics, fibres, and fertilizers industries.

Prerequisite: Chemistry 221

Lectures: 2 hours per week in the second term.

References: R. N. Shreve: *Chemical Process Industries* (McGraw-Hill);

J. A. Kent: *Reigel's Industrial Chemistry* (Reinhold).

**323 Organic Chemistry Theory. Full Course.**

T. Nogrady, G. J. Trudel

Selected topics of polymer and natural products chemistry, including carbohydrates, proteins, terpenes and steroids, heterocyclics and alkaloids. Reaction mechanisms and stereochemical aspects are treated extensively. The biological significance of many compounds is stressed.

Prerequisite: Chemistry 221.

Lectures: 2 hours per week for two terms.

Reference: Fieser and Fieser: *Topics in Organic Chemistry*. Reinhold. Roberts and Caserio: *Basic Principles of Organic Chemistry*. Benjamin.

**324 Identification of Organic Compounds. Full Course.**

M. Doughty, A. Graham

Theory and practice of organic qualitative analysis; most of the laboratory time is given to the identification of unknown compounds and the separation and identification of a simple mixture.

Prerequisite: Chemistry 222.

Lectures: 1 hour per week for two terms.

Lab.: 3 hours per week for two terms.

Text: Shriner, Fuson and Curtin, *The Systematic Identification of Organic Compounds*, Wiley.

**332 Chemical Thermodynamics. Half Course.** D. McElcheran

As a second course of Thermodynamics. The first and second laws are expanded axiomatically leading to a thorough treatment of activity relationships; Substantial application is made in the behaviour of gases, solutions and chemical equilibrium. Further applications arise in the subsequent Chemistry 333.

3 lectures per week, first term.

**333 Advanced Physical Chemistry. Half Course.**

D. McElcheran

Succeeds chemistry 332 with analysis of the states of matter based largely on phase rule. The elements of classical statistical mechanics. Surface chemistry and the colloidal state. Reaction kinetics emphasizing catalysis.

**334 Physical Chemistry Laboratory. Half Course.**

D. McElcheran

4 hours per week, first term.

**425 Organic Chemistry Theory. Full Course.**

T. Nogrady

An advanced study of physical organic chemistry and stereochemistry. The electron theory of reaction mechanisms such as nucleophilic aliphatic substitution, elimination and addition reactions, aromatic substitution, free radical mechanisms, are discussed in depth. Modern concepts of stereochemistry and conformational analysis are also covered.

Prerequisite: Chemistry 323.

Lectures: 2 hours per week for two terms.

Texts: R. Breslow: *Organic Reaction Mechanisms*, Benjamin. K. Mislow: *Introduction to Stereochemistry*, Benjamin. Reference: Smith and Cristol: *Organic Chemistry*, Reinhold.

**426 Organic Preparation Laboratory. Full Course.**

M. Doughty, T. Nogrady

The student performs a varying series of more difficult preparations and is expected to become proficient in such techniques as vacuum distillation, catalytic hydrogenation and the manipulation of larger scale bench equipment. A sound knowledge of theory is required.

Prerequisite: Chemistry 222, 324.

Lab.: 6 hours per week for two terms.

Texts: Vogel, *A. Text-Book of Practical Chemistry*, Longmans. Fieser: *Organic Experiments*, Heath.

**435 Advanced Physical Chemistry Laboratory. Half Course.**

D. McElcheran

A continuation of Chemistry 333, but fewer and more demanding experiments.

Prerequisite: Chemistry 333.

Lab.: 4 hours per week for one term.

**436 Electrochemistry. Half Course.**

K. Ekler

Electrolytic conduction and electrolysis: Faraday's laws; specific and equivalent conductance and measurement of conductance; mobility and transport number; theory of strong electrolytes; thermodynamics of cells; electrode potentials; concentration cells; liquid junction potentials; overvoltage and polarization phenomena.

Prerequisite: Chemistry 332, 334.

Lectures: 2 hours per week for one term.

**437 Statistical Mechanics and Chemical Kinetics.**

Half Course.

D. McElcheran

Generalized coordinates and the Maxwell-Boltzmann distribution, kinetic theory of gases. Planck's radiation law and the transition from classical to quantum mechanics. Quantum statistics and partition functions.

Gas phase kinetics: Absolute rate theory, unimolecular reactions, free radical mechanisms, Chain reactions.

3 lectures per week, first term.

**438 Quantum Chemistry. Half Course.**

D. McElcheran

The Schrodinger equation; particle in a box, harmonic oscillator, rigid rotator and H-atom problems. Perturbation theory of atoms and molecules: valence bond, molecular orbital and crystal-field theories. Atomic spectra and structure. Molecular spectra and structure.

3 hours per week, second term.

**450 Senior Thesis. Half Course.**

Staff

The Department will make available to selected students a senior thesis in Organic or Physical Chemistry to be done in the second term. Students taking Chemistry 450 will not take Chemistry 426 in second term.

Lab.: 6 hours per week in the second term.



## CLASSICS

J. E. Lempkowski, Assistant Professor (Chairman)  
 D. Brown, Assistant Professor  
 T. Hoey, S.J., Associate Professor  
 J. Jope, Assistant Professor  
 Mrs. E. Preston, Lecturer  
 Mrs. B. Wardy, Assistant Professor

The requirement in Classics for Arts students may be fulfilled in the following ways:

- a) Classics 102, 202;
- b) Classics 111 and 112, or 112 and 212;
- c) Classics 121, 221.

Note: All students in Greek and Latin are required to provide themselves with dictionaries.

### Courses leading to an Honours B.A. in Classics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 English 101 French Two Electives	Greek Latin Latin French Philosophy Elective	Greek Greek Latin Ancient History Philosophy Theology	Greek Honours Tutorial Latin Honours Tutorial Prose Composition Theology Elective

### Courses leading to a B.A. with a Major in Classics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 English 101 French Two Electives	Classics Classics English French Philosophy Theology	Classics Classics Classics Theology Two Electives	Classics Classics Philosophy Two Electives

The Department of Classics offers two distinct types of courses. Courses in Classical Civilization (Classics in Translation) are designed to provide a basic acquaintance with Classical literature and civilization for non-classicists. They demand no knowledge of Latin or Greek. Courses in Latin and Greek are intended for Classics honours students and majors and others who wish to study Classical literature in the original languages in greater depth.

## HONOURS COURSES, 1968-69

### 112H Greek Literature. Full Course. J. E. Lempkowski

Plato's *Euthyphro*, *Apology*, and *Crito*.  
 Lectures: 3 hours per week for two terms.

### 212H Greek Literature. Full Course. J. Jope

A survey of Greek prose, with intensive study of selections from Herodotus, Thucydides, Lysias, Demosthenes, Aristotle, and others.  
 Lectures: 3 hours per week for two terms.

### 303H Roman Historiography. Full Course. D. Brown

Extensive readings from Caesar, Sallust, Nepos, Livy, Tacitus, and Suetonius, with particular attention to the motives, historicity, and style of each.

Lectures: 3 hours per week for two terms.

### 350H Rome: Republic and Empire. Half Course (Seminar) D. Brown

Special problems in Roman History from the tribunate of Tiberius Gracchus to the death of Nero (133 B.C.-68 A.D.).

Lectures: 3 hours per week for one term.

### 403H Roman Satire. Full Course. J. E. Lempkowski

Horace, Juvenal, and Petronius' *Cena Trimalchionis*.

Lectures: 3 hours per week for two terms.

## GENERAL AND MAJOR COURSES

### 102 Latin Literature. Full Course. E. Preston, B. Wardy

Cicero's *Pro Archia*, selections from Catullus and the *Odes* of Horace.

Prerequisite: Junior Matriculation Latin or its equivalent.

Lectures: 3 hours per week for two terms.

### 111 Elementary Greek. Full Course. J. Jope

A course for those with no previous knowledge of Greek.

Lectures: 3 hours per week for two terms.

### 112 Intermediate Greek. Full Course. J. E. Lempkowski

Further work toward the acquisition of a reading command of the language. Plato's *Apology* and *Crito*.

Prerequisite: Classics 111.

Lectures: 3 hours per week for two terms.

### 202 Latin Literature. Full Course. E. Preston, B. Wardy

Cicero's *Pro Lege Manilia*, and Books 2, 4, and 6 of the *Aeneid*.

Prerequisite: Classics 102.

Lectures: 3 hours per week for two terms.

### 212 Greek Literature. Full Course.

(Not offered in 1968-69)

Demosthenes' *Philippics* and Euripides' *Alceste*.

Prerequisite: Classics 112.

Lectures: 3 hours per week for two terms.

### 213 Plato: The Republic. Full Course.

(Not offered in 1968-69)

Prerequisite: Classics 112.

Lectures: 3 hours per week for two terms.

**302 Lucretius. Full Course.**

(Not offered in 1968-69)

Prerequisite: Classics 202.

Lectures: 3 hours per week for two terms.

**303 Livy and Tacitus. Full Course.**

D. Brown

Extensive readings from Livy, Books 21-30, and from the *Annales* of Tacitus, with particular attention to the Latinity peculiar to each historian.

Prerequisite: Classics 202.

Lectures: 3 hours per week for two terms.

**312 Herodotus and the Lyric Poets. Full Course.**

(Not offered in 1968-69)

Prerequisite: Classics 212.

Lectures: 3 hours per week for two terms.

**313 Homer. Full Course.**

(Not offered in 1968-69)

Extensive readings from the *Iliad* and *Odyssey* in Greek; both works in their entirety in English.

Prerequisite: Classics 212.

Lectures: 3 hours per week for two terms.

**330 The Ancient World. Full Course.**

D. Brown

After a preliminary consideration of the early civilizations of Mesopotamia, Egypt, India, and China, the course concentrates on the history of ancient Greece and Rome, with special attention to those institutions, theories, and discoveries that have most influenced our own time.

Lectures: 3 hours per week for two terms.

**402 Roman Comedy. Full Course.**

(Not offered in 1968-69)

Plautus' *Menaechmi*, Terence's *Hautontimoroumenos* and *Adelphi*.

Prerequisite: Classics 202.

Lectures: 3 hours per week for two terms.

**403 Roman Satire. Full Course.**

J. E. Lempkowski

Prerequisite: Classics 202.

Lectures: 3 hours per week for two terms.

**412 Greek Tragedy. Full Course.**

(Not offered in 1968-69)

Aeschylus' *Agamemnon*, Sophocles' *Oedipus Rex*, Euripides' *Hippolytus*.

Prerequisite: Classics 312.

Lectures: 3 hours per week for two terms.

**CLASSICAL CIVILIZATION****121 Full Course.**

D. Brown and J. E. Lempkowski

**A. The Classical Epic.**

A study of the heroic character in the epics of Homer, Apollonius of Rhodes, and Vergil.

**B. The Greek and Roman Historians.**

An examination of the ancient historians' estimate of man's moral and social behavior, and the role which he plays in the developments of his time.

Lectures: 3 hours per week for two terms.

**221 Full Course.**

J. Jope, J. E. Lempkowski

**A. Greek Drama.**

A study of selected plays by Aeschylus, Sophocles, Euripides, and Aristophanes.

**B. Roman Satire.**

The origin and development of the literary form which the Romans considered to be particularly their own. The *Satires* of Horace and Juvenal, Petronius' *Satyricon*.

Lectures: 3 hours per week for two terms.



## COMMUNICATION ARTS



Rev. J. E. O'Brien, S.J., Associate Professor (Chairman)  
 J. Buell, Professor  
 C. F. Gagnon, Artist-in-Residence and Associate Professor  
 M. Malik, Associate Professor  
 Rev. M. Gervais, S.J., Assistant Professor  
 H. W. Ladd, Assistant Professor (Psychology)  
 T. McPhail, Assistant Professor (Sociology)  
 L. Snider, Lecturer (Sociology)  
 G. Valaskakis, Lecturer  
 R. Dolinsky, Technical Supervisor

### OBJECTIVES OF THE DEPARTMENT

The Department bases its work in communication theory and research, cinema, radio, and television on a solid foundation in the liberal arts.

The curriculum is intended to develop in students a scholarly and creative approach to mass media. It is designed:

1. for students who intend to continue graduate studies in communication;
2. for students who intend to make a career in the public arts as writers, critics, communication consultants, directors, and performers;
3. for students who wish to enter the teaching profession as specialists in film and television education;
4. for students who intend to enter the media industries, the media professions, and the public arts in the areas of publicity, promotion, advertising, and public relations.

### FACILITIES

The Department has one professionally equipped television-film studio with 3 Plumbicon cameras, telecine chain, and video tape recorder, 2 professionally equipped radio studios and control rooms, 1 film editing room, 1 darkroom, 1 photo studio and a graphics room.

### COURSE REQUIREMENTS FOR A B.A. WITH A MAJOR IN COMMUNICATION ARTS

#### GENERAL REQUIREMENTS:

- 1st year: Classics, English; French; ONE from Biology, Economics, Modern Languages, or Sociology; ONE from History, Math. or Theology.
- 2nd year: Classics; English; French; Philosophy; ONE elective; Communication Arts 200 and 205.
- 3rd year: Philosophy, ONE elective; Three Communication Arts.
- 4th year: Theology; ONE elective; Three Communication Arts.

### SPECIFIC REQUIREMENTS:

7 full courses in the Department.

N.B. A student may be invited, after demonstrating his competence and creative ability, to enroll in an Experimental Workshop (Course 460 or 470). The Workshop is taken in addition to the seven full courses required for the major.

*Required courses:* Nos. 200, 205, 300.

*Required labs.:* The equivalent of two full course credits to be chosen from the following options: Nos. 260, 270, 275, 360, 365, 370, 375.

*Electives in the Department:* Three full course credits to be chosen after consultation with the Department.

### 200 Explorations in Communication. Half Course.

J. E. O'Brien and Staff

An introduction to experiences in total communication and to a probe of these experiences, v.g., architecture, art, drama, film, music, advertising, computers, etc., — the course aims at a heightened awareness and understanding of total communication in present-day environments.

2 hours per week for two terms.

### 205 Communication Analysis. Half Course.

M. Malik

General and detailed analysis of various information complexes, v.g., exhibitions, theatres, cinema performances, museums, galleries, countrysides, city streets, highways, department stores, etc., from the viewpoint of the information aids used to influence the perception of visitors — light, space, sound, pictures, words, and exhibits. Individual student projects will be assigned.

2 hours per week for two terms.

### 260 Principles of Photography. Half Course. LAB.

Staff

After an introduction to basic photographic equipment and to the principles of composition and lighting, the course will examine still photography as a contemporary art form. Individual student projects will be assigned.

3 hours per week for one term.

### 270 Fundamentals of Radio Production I: Half Course. Lab.

This course is designed to give students (1) a working knowledge of all the basic elements involved in the production of a radio program, (2) practical creative experience in the production of the simpler formats for radio, and (3) practice in voice control and basic announcing techniques.

3 hours per week for one term.

**275 Fundamentals of Radio Production II: Half Course. Lab.**

A continuation of Part I, the course explores the creative possibilities inherent in fairly complicated programming and experiments with sportscasts, words and music shows, magazine shows, classical music programs, documentaries and dramas. All programs are recorded for playback and discussion.

3 hours per week for one term.

Prerequisite: Course 270.

**300 Mass Media and Cultural Forms. Full Course. J. Buell**

In general, this course is a study of media and modern civilization, and it concentrates on the communicational and art forms of film, radio, television, and print. It examines, among other things: the evolution of the traditional fictional and rhetorical arts into their mass media forms, the actual forms and formats necessitated by the mass media, the media theories of Marshall McLuhan, the function of image and symbol in communication, the entertainment aspect of mass reception, and the current practices, problems, and possible developments in these fields.

3 hours per week for two terms.

**305 Mass Society. Half Course. Second Term. L. Snider**

Collective behavior including fads, fashions, crazes, mobs, riots, social movements and publics are analyzed and explained within a social-psychological framework. The origins and dynamics, internal and external, of social action and pressure groups are discussed. Mass communications, in terms of form and content are studied as factors in the various forms of collective behavior. The implications of mass leisure and population qualities such as age, sex, racial and religious factors in urban centers are appraised.

3 hours per week for one term.

**310 Drama-Forms: From Stages to Screens. Half Course.**

J. Buell

A study of drama as an art-form in its historical circumstances and its various media, this course concentrates mainly on structure, technique, and medium. It examines the varying forms of stage drama (Greek, Medieval-Elizabethan, Modern), the role of spoken and printed fiction, film drama, and television drama.

2 hours per week for two terms.

**320 Communication by Speech. Full Course. G. Valaskakis**

A survey course in oral communication, this course is designed to give the student knowledge of and experience in speech situations with radio, television, and "live" audiences. Students will analyze, prepare, and deliver speeches of various types and will participate in interviews, group discussions, and dramatic readings. Course includes some study of voice and movement.

3 hours per week for two terms.

**330 History of Cinematic Art I: The Silent Cinema.**

Half Course. (Not offered in 1968-69)

M. Gervais

A history of the Silent Cinema in its feature films, tracing the growth of the art form from its earliest days through the great works (v.g., Griffith, Stroheim, the American comics, Chaplin, the Scandinavian mystics, the German expressionists and realists, the Russian Revolutionaries, etc.). The over-all human dimension of these artistic human statements will be examined as will the more strictly artistic preoccupations of their creators.

3 hours per week — screening, discussion  
1 hour per week — analysis, discussion, etc. } for one term.

**335 History of Cinematic Art II: The Talkies until 1945.**

Half Course. (Not offered in 1968-69)

M. Gervais

A history of the feature talkies, tracing the development of the art form and concentrating on the classics and leading genres, stressing these films in their over-all human dimensions and in their more strictly aesthetic perspectives. (e.g., Clair, Renoir, Cocteau, Carné; the Hollywood Western, gangster, and musical films; John Ford, Eisenstein, Von Sternberg, Chaplin, Dreyer, etc.)

3 hours per week — screening, discussion  
1 hour per week — analysis, discussion, etc. } for one term.

**340 Documentary Film. Half Course. First Term.**

M. Malik

A survey of the documentary film field, the course will examine the various styles of documentaries, v.g., the Romantic, Realistic, Impressionistic, Scientific, Biographical, Ethnographical, and Sociological. These styles will be examined in detail in the works of Flaherty, Grierson, Capra, Wright, Groiter, and Thompson. Individual student projects will be assigned.

Screenings: every second week.  
Lectures, discussion, and analysis: every other week. } for one term.

**355 Communication Research. Half Course. Second Term.**

M. Malik

An examination of the aids and practical research methods for information chains. Limited experiments will be conducted on information complexes, v.g., 3D complexes — exhibition spaces, museums, galleries — 2D complexes — cinema, photography, the painted picture — metacomplexes and internal information spaces. Individual and group projects will be assigned.

3 hours per week for one term.

Prerequisite: Course 205.

**360 Elementary Filmmaking I. Half Course. Lab.**

C. Gagnon

An introduction to filmmaking, this course stresses familiarization with equipment, sensual-visual perception, and the basic construction of a film in terms of visual and literary continuity.

3 hours per week for one term.

Prerequisite: Course 260 or consent of the instructor.



**365 Elementary Filmmaking II: Half Course. Lab.** C. Gagnon

A study of the motion picture camera and its uses, of lenses and of creative focusing, the course examines in detail visual continuity and sensual and psychological perception.

3 hours per week for one term.

Prerequisite: Course 360 or consent of the instructor.

**370 Fundamentals of Television Production I. Half Course. Lab.**

J. E. O'Brien

After introducing students to the use of video, audio, and lighting boards, the course provides opportunities for experimentation in the scripting, programming, and producing of the simpler programme formats from rehearsal through final production.

3 hours per week for one term.

**375 Fundamentals of Television Production II. Half Course. Lab.**

J. E. O'Brien

A continuation of Part I, this course explores the creative possibilities inherent in panel, interview, and games shows, the public affairs program, the documentary, the educational program, etc.

All programs are videotaped for playback and discussion.

3 hours per week for one term.

Prerequisite: Course 370 or consent of the instructor.

**400 Mass Communication. Half Course. First Term.**

T. McPhail

The focus of this course will be on the nature of communication as a social process, the relative influence and effect of person to person and mass-media to person communication in relation to attitude formation and change, behavior, values and society in general. Particular emphasis is placed on the capacity of mass media to generate social action under varying social conditions.

Recent empirical studies are examined.

Prerequisite: 3rd year standing in Communication Arts program.

3 hours per week for one term.

**405 Psychology of Communication. Half Course. First Term.**

H. V. Ladd

The course is focused on the development of language and the use of language as a means of communication and the development of language as a symbolic system. Self-communication and interpersonal communication are the major areas to be considered.

3 hours per week for one term. (cf. Evening Division Calendar)

**410 Writing for Film and Television. Full Course.** J. Buell

A teaching-workshop to enable talented students to prepare and create material in script form for film and television. The material will vary in content: drama, documentary, instruction — original and adapted; and it will go from shorter forms to the half-hour script and longer. The submission of two half-hour scripts, or the equivalent in the judgment of the professor, will constitute the year's examination.

N.B. Students taking this course must have a knowledge of these media, or must concurrently be taking production courses in them.

3 hours per week for two terms.

**415 Advertising and Public Relations. Full Course.**

J. E. O'Brien

(a) A study of advertising as mass communication in marketing, this course will examine among other things the social and economic effects of advertising, the principles of effective copy, layout, and design, and the rationale behind present-day media strategies.

(b) A study of the nature, organization, and function of the corporate image for various sectors of the public, as clarified by case analysis of present-day industries.

3 hours per week for two terms.

**430 The Contemporary Cinema. Half Course. Second Term.**

M. Gervais

A study of the great feature film artists since 1945, (e.g., Rossellini, de Sica, Fellini, Antonioni, Bergman, Hitchcock, Hawks, Bunuel, the Nouvelle Vague, the Czechs, Poles, Russians, Cinéma-vérité, Lester, the Japanese, etc.) — from the artistic and the over-all cultural point of view.

3 hours per week — screening, discussion } for one term.  
1 hour per week — analysis, discussion, etc. }

**435 Film Ideas. Half Course. Second Term.**

M. Gervais

This course will center on problems in film criticism, film theory and film aesthetics. Films highlighting certain aesthetic positions will be screened (e.g., Neo-realism, Eisenstein, Fritz Lang, the New Cinema). The course includes an analysis of critical reactions to current films and a study of the writings and theories of major artists and critics.

3 hours per week for one term.

Prerequisite: Course 330, 335, or consent of the instructor.

**440 Experimental Cinema: Animation. Half Course. (Not offered in 1968-69)**

A study (1) of experimental films from the beginnings of the cinema through the avant-garde of the late '20's into today's manifestations (v.g., Underground, EXPO, Industrial films) and (2) of animated films, the great cartoons, the masters (v.g., Disney, etc.).

**455 Communication Programming. Half Course.  
Second Term.**

M. Malik

An advanced seminar for students interested primarily in Communication theory and research. Individual projects will be assigned on the analysis of information chains, the analysis of performing conditions, the analysis of receiver responses, the design of programs, the realization of pilot programs and the evaluation or measurement of the efficiency of these programs.

3 hours per week for one term.

Prerequisite: Course 355.

**460 Experimental Workshop in Motion Pictures.  
Full Course.**

C. F. Gagnon

Prerequisite: Course 360, 365.

Students who have shown more than average promise will be invited to join the workshop. This course is taken in addition to the seven required courses for majors.

**470 Experimental Workshop in Television. Full Course.**

Prerequisite: Course 370, 375.

Students who have shown more than average promise will be invited to join the workshop. This course is taken in addition to the seven required courses for majors.

## COMPUTING CENTRE

**010 Fortran Programming.**

A non-credit course offered to all students on a voluntary basis. The course includes basic Fortran programming techniques and sufficient card handling to enable the student to compile and run his own programs on the IBM 1620. This course is offered twice in the academic year.

Lectures: 1 hour per week for 8 weeks.

**015 Machine Language Programming and SPS.**

A non-credit course offered to all students on the basis of a selection test. The course is designed for students with a good pre-college mathematical background or with prior programming experience. Basic IBM 1620 machine language including iterative routines for square root and other basic functions is emphasized. The Symbolic Programming System, automatic coding, and introduction to compilers are also included.

Lectures: 1 hour per week.

**105 Computers in Society. Full Course.**

A history of Computers and the impact of present day electronic computers on society. The Abacus and simple counting machines, Turing machines and elementary recursive functions, desk calculators and the modern electronic digital computers. Sociological and economic implications of automation. Interdiscipline contributions to the theory of computer science.

Lectures: 2 hours per week for two terms.

**201 Fortran Programming and Numerical Analysis.  
Full Course.**

A detailed study of fundamentals of digital computers and related machinery. Binary numbers, floating point arithmetic, flow charting, simple machine language instructions, automatic coding in Fortran, assemblers, compilers, etc. Numerical methods of interpolation, solution of polynomial equations and simultaneous equations, approximations, matrix manipulation, Monte Carlo techniques. Student use of the IBM 1620 and larger computers will be emphasized.

Prerequisite: Mathematics 205 (First course in Calculus).

Lectures: 2 hours per week for two terms.

**305 Numerical Analysis and Fortran Programming for Engineers.**

Offered only to engineering students as Engineering 133.



## ECONOMICS

S. A. Alvi, Associate Professor (Chairman)  
 F. J. Hayes, Associate Professor  
 B. Brody, Assistant Professor  
 A. K. Datta, Assistant Professor  
 D. S. Herskowitz, Assistant Professor  
 A. G. Lallier, Assistant Professor  
 I. J. Masse, Assistant Professor  
 C. S. Papadantonakis, Assistant Professor  
 B. Wright, Assistant Professor



### Courses leading to an Honours B.A. in Economics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 ECONOMICS 100 English 101 French Mathematics 101	ECONOMICS 260 ECONOMICS 271 French Philosophy Theology Elective (1)	ECONOMICS 366 ECONOMICS 304 Philosophy Theology Elective (1)	ECONOMICS 461 or 464 or 480 ECONOMICS Electives (2) Electives (2)

### Courses leading to a B.A. with a Major in Economics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 ECONOMICS 100 English 101 French Mathematics 101	Classics 112 or 202 or 212 or 221 ECONOMICS 210 ECONOMICS 221 French Philosophy Theology	ECONOMICS 366 ECONOMICS 304 Philosophy Theology Elective (1)	ECONOMICS Elective (1) English Electives (3)

### Courses leading to an Honours B.Comm. in Economics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Accounting 101 ECONOMICS 100 English 101 French Mathematics 101	ECONOMICS 260 ECONOMICS 271 French Philosophy Electives (2)	ECONOMICS 366 ECONOMICS 304 Philosophy Theology Elective (1)	ECONOMICS 461 or 464 or 480 ECONOMICS Electives (2) Theo. (2nd course) Electives (2)

### Courses leading to a B.Comm. with a Major in Economics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Accounting 101 ECONOMICS 100 English 101 French Mathematics 101	Accounting 202 ECONOMICS 210 ECONOMICS 221 French Philosophy Elective (1)	ECONOMICS 366 ECONOMICS 304 Philosophy Theology Elective (1)	ECONOMICS Elective (1) English Theo. (2nd course) Electives (3)

NOTE: The Economics Department may permit a third year student to take one additional approved course, if a 70% average and a record clear of supplementals, repeat courses, etc., has been maintained in the preceding two years.

## 100 Principles of Economics. Full Course.

Staff

A survey of the existing economic order, with particular emphasis on the North American Economy. Concentration is on explaining the operation of the price system as it regulates production, distribution, and consumption, and as it in turn is modified and influenced by private organization and government policy. Consideration is also given to the determination of aggregate economic activity. The main areas studied include: the monetary and banking systems in the United States and Canada; the composition and fluctuations of national income; and the major conditions of economic growth; all as influenced by monetary, fiscal and other policies.  
 Lectures : 3 hours per week for two terms.

## 210 Intermediate Economic Theory. Full Course.

Staff

In this course consideration will be given to such topics as: theory and measurement of demand; production functions; cost analysis; price and output policy under various market conditions; factor pricing; income and employment theory.  
 Lectures : 3 hours per week for two terms.

## 221 Economic Method. Full Course.

I. J. Masse and A. K. Datta

An introductory application of mathematics to economic analysis. Topics: analytic geometry; differential and integral calculus; differential and difference equations; elements of linear algebra. Selected topics of economic applications will be covered throughout the course.  
 Lectures : 3 hours per week for two terms.

## 260 Intermediate Economic Theory. (Honours). Full Course.

S. A. Alvi

Lectures : 3 hours per week for two terms.

## 271 Economic Method. (Honours). Full Course.

C. S. Papadantonakis

Lectures : 3 hours per week for two terms.

## 302 Economic History. Full Course. (Not offered in 1968-69)

An analysis of the development of Western Europe, Canada and the United States.  
 Lectures : 3 hours per week for two terms.

## 303 Theories and Processes of Economic Growth and Development. Full Course.

S. A. Alvi

A consideration of various contributions by economists and others to an understanding of how societies grow and undergo institutional change. The course also includes a study of the problem of accelerating economic growth, with emphasis on

selected developing nations of the present time, an analysis of the process of capital formation, the role of the state (in different politico-economic systems), the role of external assistance in economic development, and the economics of investment decisions. Emphasis is also given to the interaction of the cultural change and economic development.

Lectures : 3 hours per week for two terms.

### 304 Applied Statistics. Full Course.

I. J. Masse and D. Herskowitz  
Staff

The application of statistical methods to economic problems, including probability, testing hypotheses, time series, correlation and linear regression analysis.

Lectures : 3 hours per week for two terms.

### 305 Economic Fluctuations. Full Course.

I. J. Masse

A review of the more relevant theories on the causes of economic fluctuations; analysis and discussions on current economic climate, including Annual Review of Economic Council of Canada; tools of forecasting, indicators and diffusion indexes.

Lectures : 3 hours per week for two terms.

### 306 Money, Banking, and Income Theory. Full Course.

Staff

The functions of money, money and prices; the evolution and kinds of money; the value of money, the supply of money, monetary and banking developments in Canada, the United States and the United Kingdom; the determinants of national income; the multiplier and acceleration principles, monetary and fiscal policy.

Lectures : 3 hours per week for two terms.

### 333 Comparative Economic Systems. Full Course.

A. G. Lallier

The evolution of economic systems is discussed and evaluated in terms of modern economic theory, and from the point of view of economic efficiency and development.

Lectures : 3 hours per week for two terms.

### 338 Labour Economics. Full Course.

B. Brody

A comprehensive survey of labour market elements: labour supply, labour demand (marginal productivity theory), unemployment analysis, Canadian and foreign manpower policies, wage theory and structures, wage differentials, the wages-productivity-costs-prices relationship, impact of technological change, economics of education. Discussion of research methodology and contemporary issues.

Lectures : 3 hours per week for two terms.

### 348 Industrial Relations. Full Course.

B. Brody

A systematic study of the employer-trade union environment, including theories of the labour movement, Canadian trade union structure and government, management attitudes towards trade unions and collective bargaining; collective bargaining — nature, structure, critical issues, legislation, challenges to; power — role, determinants; strikes and lock-outs; structure of the collective agreement; unions in the public sector; implications of wage policies; the future of collective bargaining.

Lectures : 3 hours per week for two terms.

### 366 Monetary and Income Theory. (Honours). Full Course.

B. Wright

Income determination in a money economy. Some problems, including economic stability, inflation, balance of payments and international liquidity.

Lectures : 3 hours per week for two terms.

### 407 International Trade. Full Course.

Staff

Historical and economic background of international trade; the theory of international trade; balance of payments; international capital movements; foreign exchange; international commercial policies; international organization dealing with commercial theory.

Lectures : 3 hours per week for two terms.

### 435 Public Finance. Full Course.

D. Herskowitz

A study of the principals and practices of public finance, with special reference to North America.

Lectures : 3 hours per week for two terms.

### 437 Canadian Economic Policy. Full Course.

F. J. Hayes

This course is devoted to examining economic policy in a number of selected areas.

Lectures : 3 hours per week for two terms.

### 461 History of Economic Thought. (Honours). Full Course.

A. G. Lallier

A critical review of economic thought since Plato and Aristotle.

Lectures : 3 hours per week for two terms.

### 464 Operations Analysis and Economic Theory. (Honours). Full Course.

C. S. Papadantonakis

Application of mathematical techniques to economic analysis. Topics will include the Calculus. Theory of Determinants, programming, etc., and their application to selected areas in Economic Theory: Production and inventory decisions; linear programming; transportation problems; queues; input-output analysis, game theory, econometric macromodels.

Lectures : 3 hours per week for two terms.

### 480 Macro-Economic Analysis. (Honours). Full Course.

C. S. Papadantonakis

A critical study of selected topics in Aggregative Economic Analysis.

Lectures : 3 hours per week for two terms.



## ENGINEERING

### FACULTY OF ENGINEERING

G. W. Joly Dean  
 C. Goldman, Associate Professor  
 K. I. Krakow, Associate Professor  
 S. J. Kubina, Associate Professor  
 J. A. Krantzberg, Lecturer  
 Rev. H. Wardell, S.J., Assistant Professor  
 S. A. Neilson, Assistant Professor  
 J. E. Orr, Special Lecturer  
 C. E. Adkar, Special Lecturer  
 D. Kaufman Special Lecturer



### THE OBJECTIVE

The overall objectives of the Faculty of Engineering are the growth and development of the student into a self-identifiable person and the acquisition by him of the knowledge upon which to build his career. In the concrete, these goals are proposed to the student as a personal search for excellence and the forming of himself to manage industry, whether technically or administratively.

While the subjects of the curriculum — technology, science, humanities, professional practice — have to be presented as discrete disciplines, the Faculty seeks at all times to make the student aware that he must integrate them into his personality so that they become the foundation for supporting his chief function in society — the making of decisions.

### THE PROGRAM

The Faculty of Engineering offers a four-year program of studies, upon the successful completion of which the student is awarded a Bachelor of Science Degree. Although the curricula of the program are designed to enable students to pursue advanced studies in engineering, science or business at other universities, nevertheless, those who do not elect to do so will find themselves well prepared for a career in industry at a high technological level. Moreover, those who do not go on to advanced studies but who have followed a curriculum designated DESIGN, may achieve professional standing in Engineering with a limited amount of study, privately carried out.

### THE CURRICULA

The First and Second Years are common to all the specialized curricula available in the Third and Fourth Years. During these first two years, students are encouraged to familiarize themselves with the options open to them and are invited to consult the Dean and his colleagues about them.

A student completing the Second Year may select one of the following programs to pursue in the Third and Fourth Years :

## CHEMICAL ENGINEERING\*

The Chemical Engineering Curriculum has been prepared for students whose goal is the development, design, operation and management of plants in the chemical and industrial field.

\*The First, Second and Third years of these curricula marked with an asterisk (\*) are compatible with the first three years of the Engineering schools in Quebec.

## CIVIL ENGINEERING (DESIGN)\*

The Civil Engineering Curriculum (Design) has been prepared for students whose goal is either the design of structures or the design and control of engineering systems.

## ELECTRICAL ENGINEERING

### A. Design\*

The curriculum offers a core of electrical engineering subjects and reasonable depth of study in physics and applied mathematics. Selected electives can be used by the student to open the way for graduate study in some of the modern technological areas such as solid state physics and systems.

### B. Computation

The option in Engineering Computation is designed for those engineering students who wish to specialize in the expanding field of computer technology. The curriculum has a strong engineering content integrated with courses in electronics, computers and engineering computation to provide a good introduction to the field of computer-aided design in the major fields of engineering.

## MECHANICAL ENGINEERING

### A. Design\*

The curriculum in Mechanical Engineering (Design) is concerned with the generation and utilization of power, the design and operation of mechanical devices.

### B. Industrial Engineering

This program is designed for students who are mainly interested in the production and supervisory aspects of Engineering. It is built on a strong foundation of basic engineering principles in the field of Mechanical Engineering.

### C. Engineering Administration

This curriculum is designed for those students who while making the administration of industry their goal nevertheless consider that their success will depend on a sound grasp of the increasingly high technological content of industry, especially in Mechanical Engineering.

### PROMOTION

For promotion, an overall average of at least 60% of the weighted marks is required, and at least 50% in each separate examination. A student who fails to achieve promotion and wishes to discuss the possibility of continuing his academic career in the Faculty of Engineering must apply IN WRITING to the Dean, Engineering, before July 15.

\*The First, Second and Third years of these curricula marked with an asterisk (\*) are compatible with the first three years of the Engineering schools in Quebec.

### ADMISSIONS

The requirements for admission are as follows :

#### Canadian Applicants to first year:

1. For consideration for entry, an applicant must have :
  - a) achieved Junior Matriculation;
  - b) passed 10 papers in June, amongst which must be :  
English (2 papers),  
Trigonometry\*,  
Physics,  
Chemistry,
  - c) achieved an overall average of at least 70% in these 10 papers and a good second class mark in the compulsory ones listed in b) above.
2. Canadian applicants whose qualifications are different from those above should apply IN WRITING to Loyola College for a review of them.
3. ACCEPTANCES IN EARLY JUNE ARE GRANTED TO QUALIFIED CANDIDATES.

#### Applicants from Abroad to first year

Applicants who consider that their qualifications are equivalent to those specified for Canadian students are invited to submit them to Loyola College for review.

\*Applicants having, in addition, Intermediate Algebra will receive favorable consideration.

### First Year Engineering — ALL OPTIONS

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
MECHANICS I	E-001	100	2	2	—	2
VECTOR ANALYSIS	E-101	100	2	2	—	—
ENGINEERING GRAPHICS I	E-201	100	—	—	3	3
PROFESSIONAL PRACTICE I	E-301	50	1	1	—	—
CHEMISTRY	C-101/2	150	3	3	3	3
ENGLISH	En-101	100	3	3	—	—
FRENCH	F-120	100	2	2	1	1
CALCULUS	M-110	100	3	3	—	—
HEAT & SOUND	P-103	75	2*	—	2	—
FORTRAN PROGRAMMING	Cc-010	—	—	—	—	—
TOTAL:		875	18	16	9	9

\*3 hrs/week alternate weeks.

### Second Year Engineering — ALL OPTIONS

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
MECHANICS II	E-002	100	2	2	—	—
ENGINEERING PROBLEMS	E-102	50	—	—	2	2
ENGINEERING GRAPHICS II	E-202	100	1	1	2	2
PROFESSIONAL PRACTICE II	E-302	50	1	1	—	—
*TECHNICAL REPORT	E-313	—	—	—	—	—
MATERIALS SCIENCE I	E-802	100	2	2	—	—
PHYSICAL CHEMISTRY	C-231	100	3	3	—	—
ALGEBRA	M-212	100	2	2	—	—
CALCULUS	M-210	100	3	3	—	—
LIGHT & ELECTRICITY	P-206	100	2	2	2	2
PHILOSOPHY		100	2	2	—	—
THEOLOGY		100	2	2	—	—
TOTAL:		1,000	20	20	6	6

\*Prepared in summer following Year 2. Counted as part of Year 3.  
Do not register in Year 2.



## Third Year CHEMICAL ENGINEERING

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
STRENGTH OF MATERIALS I	E-033	100	2	2	—	—
NUMERICAL ANALYSIS & COMP.	E-133	75	2	—	—	—
*TECHNICAL REPORT	E-313	100	—	—	—	—
THERMOD. & FL. MECH.	E-714	150	2	2	2	2
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
INORGANIC QUANT. ANALYSIS	C-212	100	1	1	3	3
PHYS. CHEM. LAB.	C-333	100	—	—	4	—
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
ENGINEERING MATHS.	M-313	100	2	2	—	—
THEOLOGY	—	100	2	2	—	—
TOTAL:		1,100	15	14	12	8

\*Prepared in summer following second Year.

## Fourth Year CHEMICAL ENGINEERING

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
THERMODYNAMICS	C-334	75	3	—	—	—
ORGANIC CHEM.	C-221	100	3	3	—	—
ORGANIC CHEM. LAB.	C-222	50	—	—	3	3
EXPERIMENTAL ENGINEERING	E-703	50	—	1	—	2
PHILOSOPHY	—	100	2	2	—	—
PROBABILITY & STATISTICS	M-201	100	3	3	—	—
ACCOUNTING	A-310	100	3	3	—	—
FEEDBACK & CONTROLS	E-134	50	2	—	—	—
SYSTEMS ANALYSIS	E-103	75	1	1	2	2
*TECHNICAL REPORT	E-314	100	—	—	—	—
TOTAL:		800	17	13	5	7

\*Prepared in summer following third Year.

## Third Year CIVIL ENGINEERING Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
STRENGTH OF MATERIALS I	E-033	100	2	2	—	—
MECHANICS OF MACHINES	E-053	75	2	—	3	—
NUMERICAL ANALYSIS	E-133	75	2	—	2	—
*TECHNICAL REPORT	E-313	100	—	—	—	—
SURVEYING	E-523	75	2	—	2	—
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
MATERIALS SCIENCE III	E-813	25	—	—	—	3
GEOLOGY	G-100	—	—	3	—	3
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
ENGINEERING MATHS.	M-313	100	2	2	—	—
THEOLOGY	—	100	2	2	—	—
TOTAL:		1,025	16	14	10	9

\*Prepared in summer following second Year.

## Fourth Year CIVIL ENGINEERING Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
SYSTEM ANALYSIS	E-103	50	—	—	2	2
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
THERMODYNAMICS & FLUID MECHANICS II	E-724	150	2	2	2	2
*TECHNICAL REPORT	E-314	100	—	—	—	—
MECH. ENGINEERING LAB.	E-744	25	—	—	—	3
PHILOSOPHY	—	100	2	2	—	—
STRUCTURAL DESIGN	E-214	150	2	2	3	3
STRUCTURAL ANALYSIS	E-174	100	1	1	2	2
SOIL MECHANICS	E-524	75	2	—	3	—
TOTAL:		900	11	9	14	14

\*Prepared in summer following third Year.

## Third Year — ELECT. ENG. — "A" — Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
STRENGTH OF MATERIALS I	E-033	100	2	2	—	—
SYSTEMS ANALYSIS	E-103	50	—	—	2	2
NUMERICAL ANALYSIS	E-133	75	2	—	2	—
*TECHNICAL REPORT	E-313	100	—	—	—	—
CIRCUIT ANALYSIS & ENER. CONV.	E-623	150	2	2	3	3
SOLID STATE PHYSICS	E-653	75	—	3	—	—
MATERIALS SCIENCE III	E-813	25	—	—	—	3
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
ENGINEERING MATHS.	M-313	100	2	2	—	—
MODERN PHYSICS	P-303	100	3	—	—	—
THEOLOGY	—	100	2	2	—	—
TOTAL:		975	15	13	7	8

\*Prepared in summer following second Year.

## Fourth Year — ELECT. ENG. — "A" — Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
FEEDBACK CONTROL SYSTEMS	E-134	50	2	—	—	—
ANALOG COMPUTATION	E-144	75	—	2	—	3
*TECHNICAL REPORT	E-314	100	—	—	—	—
SIGNAL PROCESSING	E-654	75	—	3	—	—
ELECTRICAL MACHINES	E-664	50	2	—	3	—
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
PROBABILITY & STATISTICS	M-201	100	2	2	—	—
ELECTRONIC CIRCUITS	P-307	150	3	2	3	3
ELEC. MAG. THEORY	P-403	100	3	3	—	—
PHILOSOPHY	—	100	2	2	—	—
and, ONE of the following:						
ECONOMICS	Ec-100	100	2	2	—	—
METHODS OF MATH. PHYSICS	P-320	100	3	3	—	—
TOTAL:		1,050	18/19	18/19	5/8	5/8

\*Prepared in summer following third Year.

## Third Year — ELECT. ENG. — "B" — Computation

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
THEOLOGY	—	100	2	2	—	—
STRENGTH OF MATERIALS	E-033	100	2	2	—	—
MATERIALS SCIENCE III	E-813	25	—	—	—	3
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
*TECHNICAL REPORT	E-313	100	—	—	—	—
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
SYSTEMS ANALYSIS	E-103	50	—	—	2	2
ACCOUNTING	A-310	100	3	3	—	—
**NUMERICAL ANALYSIS & COMP. METHODS	E-133	75	2	—	2	—
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
ENGINEERING MATH.	M-313	100	2	2	—	—
***ELECTIVES						
MECHANICS OF MACHINES	E-053	75	2	—	3	—
MECHANICAL DESIGN	E-203	50	—	1	—	3
TOTAL:		975	17	15	10	11

\*Prepared in summer following second Year.

\*\*Alternative course, Numerical Analysis M-240, 3 hrs./week.

\*\*\*Students intending to take E-204 in Year IV are required to take E-053, and E-203.

## Fourth Year — ELECT. ENG. — "B" — Computation

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
PHILOSOPHY	—	100	2	2	—	—
FEEDBACK CONTROL SYSTEMS	E-134	50	2	—	—	—
ANALOG COMPUTATION	E-144	75	—	2	—	3
PROBABILITY & STATISTICS	M-201	100	2	2	—	—
DIGITAL COMPUTER APPLICATIONS IN ENGINEERING	E-164	150	2	2	3	3
*TECHNICAL REPORT	E-314	100	—	—	—	—
**INTRODUCTION TO DIGITAL COMPUTER ENGINEERING	E-154	100	2	2	—	—
MODERN PHYSICS	P-303	100	3	—	—	—
ELECTRONIC CIRCUITS (1/2)	P-307	75	—	2	—	3
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
and one of:						
ELECTIVES:						
SOLID STATE PHYSICS	E-653	75	—	3	—	—
***MECH. ENG. DESIGN	E-204	150	2	2	3	3
ECONOMICS	Ec-100	100	2	2	—	—
ELECTROMAGNETIC THEORY	P-403	100	3	3	—	—
TOTAL:		1,100	17	16	5	11

\*Prepared in summer following third Year.

\*\*Advanced Numerical Analysis M-440, 3 hours/week, can be substituted for students who have taken M-240 in Year III.

\*\*\*Prerequisite: E-203 and E-053 in Year III.



## Third Year — MECH. ENG. — "A" — Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
STRENGTH OF MATERIALS I	E-033	100	2	2	—	—
MECHANICS OF MACHINES	E-053	75	2	—	3	—
SYSTEMS ANALYSIS	E-103	50	—	—	2	2
NUMERICAL ANALYSIS	E-133	75	2	—	2	—
MECHANICAL DESIGN	E-203	50	—	1	—	3
*TECHNICAL REPORT	E-313	100	—	—	—	—
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
EXPERIMENTAL ENGINEERING	E-703	50	—	1	—	2
MATERIALS SCIENCE II	E-803	100	1	—	3	3
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
ENGINEERING MATHS	M-313	100	2	2	—	—
THEOLOGY	—	100	2	2	—	—
TOTAL:		1,075	15	13	13	13

\*Prepared in summer following second Year.

## Fourth Year — MECH. ENG. — "A" — Design

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
THERMODYNAMICS & FLUID MECHANICS II	E-724	150	2	2	2	2
MECHANICAL ENGINEERING LAB.	E-734	50	—	—	3	3
MECHANICS OF MACHINES II	E-054	50	2	—	—	—
MECHANICAL DESIGN II	E-204	150	2	2	3	3
FEEDBACK & CONTROL SYSTEMS	E-134	50	2	—	—	—
PHILOSOPHY	—	100	2	2	—	—
*TECHNICAL REPORT	E-314	100	—	—	—	—
TOTAL:		800	12	8	10	10

\*Prepared in summer following third Year.

## Third Year — MECH. ENG. — "B" — Industrial Engineering

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
STRENGTH OF MATERIALS	E-033	100	2	2	—	—
MECHANICS OF MACHINES	E-053	75	2	—	3	—
MECHANICAL DESIGN	E-203	50	—	1	—	3
NUMERICAL ANALYSIS	E-133	75	2	—	2	—
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
MATERIALS SCIENCE II	E-803	100	1	—	3	3
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
THEOLOGY	—	100	2	2	—	—
ACCOUNTING	A-310	100	3	3	—	—
EXPERIMENTAL ENGINEERING	E-703	50	—	1	—	2
*TECHNICAL REPORT	E-313	100	—	—	—	—
TOTAL:		925	16	11	11	8

\*Prepared in summer following second Year.

## Fourth Year — MECH. ENG. — "B" — Industrial Engineering

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
SYSTEMS ANALYSIS	E-103	50	—	—	2	2
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
ENGINEERING MATHEMATICS	M-313	100	2	2	—	—
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
FEEDBACK CONTROL SYSTEMS	E-134	50	2	—	—	—
*TECHNICAL PAPER	E-314	100	—	—	—	—
PHILOSOPHY	—	100	2	2	—	—
ECONOMICS	Ec-100	100	3	3	—	—
ADMINISTRATION OF THE FIRM	B-310	100	3	—	—	—
TOTAL:		850	14	12	4	7

\*Prepared in summer following third Year.

### Third Year — MECH. ENG. — "C" — Engineering Administration

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
THEOLOGY	—	100	2	2	—	—
ACCOUNTING	A-310	100	3	3	—	—
ECONOMICS	Ec-100	100	3	3	—	—
STATISTICS	M-202	100	—	3	—	—
STRENGTH OF MATERIALS	E-033	100	2	2	—	—
MECHANICS OF MACHINES	E-053	75	2	—	3	—
NUMERICAL ANALYSIS	E-133	75	2	—	2	—
CIRCUIT ANALYSIS	E-633	75	2	—	3	—
MECHANICAL DESIGN	E-203	50	—	1	—	3
DIFFERENTIAL EQUATIONS	M-312	100	2	2	—	—
*TECHNICAL REPORT	E-313	100	—	—	—	—
TOTAL:		975	18	16	8	3

\*Prepared in summer following second Year.

### Fourth Year — MECH. ENG. — "C" — Engineering Administration

COURSE	Course Number	Weighted Mark	Lecture hours per week		Labs. hours per week	
			First Term	Second Term	First Term	Second Term
PHILOSOPHY	—	100	2	2	—	—
ADMINISTRATION OF THE FIRM	B-310	100	3	—	—	—
OPERATIONS ANALYSIS	B-417	100	3	3	—	—
INTEREST	M-203	100	3	—	—	—
ECONOMICS	Ec-210	100	3	3	—	—
ELECTRICAL ENGINEERING	E-643	100	—	3	—	3
*TECHNICAL REPORT	E-314	100	—	—	—	—
THERMODYNAMICS & FLUID MECHANICS I	E-714	150	2	2	2	2
TOTAL:		850	16	13	2	5

\*Prepared in summer following third Year.

### APPLIED MECHANICS

#### 001 Mechanics I.

G. W. Joly and J. Krantzberg

Position, velocity and acceleration of a rigid body executing plane motion. Relative motion. A preliminary study of the dynamics of curvilinear plane motion in order to establish the principles of center of gravity and moment of inertia, followed by a development of these ideas in depth. So as to prepare the student for the later presentation of static equilibrium as a special case of dynamics. Mechanics I commences with the intuitional view of the conditions of static equilibrium through a study of simple space frames. The vector approach is used freely.

Lectures : 2 hours per week, both terms.

Problems : 2 hours per week, second term.

#### 002 Mechanics II.

C. Goldman

The three general approaches to dynamics : torque and inertia-acceleration, work and kinetic energy, impulse and momentum. The selection of the appropriate general approach in each problem is emphasized and numerical results are expected.

Forces in rotating bodies, Gyroscopes. The vector approach is used freely.

Lectures : 2 hours per week, both terms.

#### 033 Strength of Materials I.

C. Goldman

Elastic Theory of matter; axial, thermal and bending stresses; combined stress, tension, deflection of beams by differential equation of elastic line, moment area, superposition and conjugate beam methods; statically indeterminate beams; energy of strain; introduction of photostress analysis and theory of models.

Lectures : 2 hours per week for both terms.

#### 053 Mechanics of Machines I.

K. I. Krakow

Analytical and graphical velocity, acceleration and force analysis of mechanisms; static and dynamic balancing of rotating and reciprocating mechanisms; design of cams, gears, gear trains.

Lectures : 2 hours per week, first term.

Problems : 3 hours per week, first term.

#### 054 Mechanics of Machines II.

K. I. Krakow

Vibrations, free, forced, damped; systems having single and multiple degree of freedom; torsional vibration of shafts, critical speed of shafts; flywheel calculations.

Lectures : 2 hours per week, first term.

### ENGINEERING ANALYSIS

#### 101 Vector Analysis.

G. W. Joly and J. Krantzberg

Position vectors, addition of vectors, angle between two lines, equation of plane in normal form, scalar product, projection of one line on another, vector product, shortest distance between a point and a line or plane, shortest distance between two lines, moment of a force about a line, triple scalar product.

Lectures : 2 hours per week, two terms.



**102 Engineering Problems.**

C. Goldman

Solving of problems in Mechanics, and Mathematics. Great emphasis is laid on setting up problems in Engineering.  
Lectures : 2 hours problems per week, two terms.

**103 Systems Analysis.**

K. I. Krakow

The application of Mathematics to the solutions of Civil, Electrical and Mechanical Engineering problems. Systems of single and multiple degrees of freedom; gyroscopic motion; particle mechanics; vector fields; unit functions; analogies between mechanical and electrical systems.  
Lectures : 2 hours problems per week, both terms.

**133 Numerical Analysis and Computation Methods.**

S. Kubina

An introduction to Digital Computer Programming and associated methods of numerical analysis useful in the solution of engineering problems. Laboratory periods are devoted to the solution of problems using a desk calculator and a digital computer.

Lectures : 2 hours per week, one term.  
Computer Lab. : 2 hours per week, one term.

**134 Feedback Control Systems.**

D. Kaufman

Review of Laplace Transform Methods. Dynamics of control system components. Objectives of Automatic Control. Block Diagrams. Complex Plane Techniques. Stability. Root Locus. Compensation. Frequency Response Methods.  
Lectures : 2 hours per week, first term.  
Text : Introduction to Automatic Control Systems, Clark.

**144 Analog Computation.**

D. Kaufman

Fundamentals of analog computing : addition, subtraction, integration, differentiation, time and magnitude scaling. Mathematical modelling of control and physical systems by differential equations and their solution by analog computer. Error Analysis. Laboratory work involves solution of problems on a general-purpose analog computer.  
Lectures : 2 hours per week, second term.  
Laboratory : 3 hours per alternate weeks,  
Text : To be specified.

**154 Introduction to Digital Computer Engineering.**

Fundamental concepts; switching algebra, number systems, codes, arithmetic operations, and principles of logical design. Computer arithmetic and control units, computer memories, stored-program computers. Problem formulation, coding and programming concepts, computer system organization. Examples shall be taken from modern general-purpose computers.  
Lectures : 2 hours per week, both terms.

**164 Digital Computer Applications in Engineering.**

Selected Topics in numerical methods for solution of engineering problems, iterative solutions of algebraic and transcendental equations, solutions of systems of linear algebraic equations, matrix manipulation, polynomial curve fitting, solution of ordinary and partial differential equations and of systems of differential equations. Stability and Accuracy of solutions. The methods are illustrated by application to typical engineering problems and to recent techniques in computer-aided design. Applications to engineering management and project control techniques such as CPM, PERT and PERT/COST are discussed. The important portion of the course involves the analysis and solution of a representative class of problems by the student using the digital computer.

Lectures : 2 hours per week, both terms.  
Lab : 3 hours per week.

**174 Structural Analysis.**

C. Goldman

Analysis of statically indeterminate structures, moment distribution, slope deflection, virtual work, and strain energy; deflection analysis; influence lines; collapse methods.  
Lectures : 1 hour per week, two terms.  
Labs : 2 hours per week, two terms.

**ENGINEERING DESIGN****201 Engineering Graphics I.**

H. Wardell

Orthographic projection, auxiliary and oblique views, dimensioning, sectioning. Geometrical construction of ellipses, hyperbolas, cycloids, involutes, etc. Pictorial drawings including isometric, oblique. Common machine elements; screws, welding, structural shapes. Free-hand sketching, working and assembly drawings.  
Lectures : 1 hour per week for two terms.  
Lab. : 2 hours per week for two terms.  
Text : French Engineering Drawing McGraw-Hill.

**202 Engineering Graphics II.**

H. Wardell

Theory of orthographic projection, auxiliary views, lines, planes, intersections, dihedral angles, parallelism, perpendicularity, revolution, developments, mining and civil engineering problems involving principles covered in the course.  
Lectures : 1 hour per week for two terms.  
Lab. : 2 hours per week for two terms.  
Text : Descriptive Geometry, Paré-Loving-Hill.

**203 Mechanical Design.**

K. I. Krakow

Mechanical design involving elementary stress analysis; design of cams; belt drives; brakes; relation between design and manufacturing techniques, presentation of design briefs.  
Lectures : 1 hour per week, second term.  
Problems : 3 hours per week, second term.

**204 Mechanical Design II.**

Design factors, stress concentration, screw and rivet fastenings and connections, springs, bearings, belts, shafts gears, couplings, clutches.

Design problems related to mechanical engineering involving the application of theoretical work of Strength of Materials and Mechanics of Machines.

Lectures : 2 hours per week, both terms.

Lab. : 3 hours per week, both terms.

**214 Structural Design.**

C. Goldman

Design of tension, compression, and flexural members in steel and timber; specifications and codes; riveted, bolted, and welded details; building frames; elastic and plastic design methods.

Lectures : 2 hours per week, two terms.

Labs. : 3 hours per week, two terms.

**PROFESSIONAL PRACTICE****301 Professional Practice I.**

S. A. Neilson

Use of English, both oral and written in engineering practice, mechanics of presentation, graphical representation, reproduction methods, job applications; specifications.

Lectures : 1 hour per week, both terms.

**302 Professional Practice II.**

S. A. Neilson

Continuation of Course 301 with emphasis on Public Speaking — Conference Techniques, etc.

Lectures : 1 hour per week, both terms.

**313 Technical Report**

S. A. Neilson

Students entering the Third Year of Engineering must submit a Technical Report. The most suitable subject for the Report is a topic drawn from the experience during his summer work. If, however, a student's summer experience does not provide a reasonable topic, he may visit and inspect any engineering, scientific or industrial project in course of construction or operation, and write upon his observations. The Report should be between 2000 and 4000 words in length and must be handed in not later than Registration Day.

**314 Technical Report.**

S. A. Neilson

Students entering the Fourth Year of Engineering must submit a Technical Report similar to Technical Report 313 but at a more advanced level.

**CIVIL ENGINEERING****523 Surveying.**

C. Goldman

Types of survey; description and use of level, compass, transit, chain and tape; levelling; traverses, stadia. Route surveys involving simple, spiral, and vertical curves. Grades, cross-sections, area and earth-work calculations. Use of planimeter; Triangulation; Hydrographic surveying.

Lectures : 2 hours per week, one term.

Lab. : 2 hours per week, one term.

**524 Soil Mechanics.**

W. Cosgrove

Soil properties and structure; subsurface exploration methods; bearing capacity of soils, soil strength, settlement and consolidation; slope stability; groundwater and seepage; lateral earth pressure theories, design of retaining walls, and footings; foundation types.

Lectures : 2 hours per week, one term.

Labs. : 3 hours per week, one term.

**ELECTRICAL ENGINEERING****623 Circuit Analysis and Energy Conversion.**

S. Kubina

The fundamentals of the analysis of linear circuits to study time varying, periodic and non-periodic currents, and voltages; node and loop analysis; network theorems; time frequency domain relationships; polyphase circuits; Fourier series, Laplace transforms; coupling elements and coupled circuits; ideal transformers; controlled sources. Semiconductor electronics. Simple amplifier circuits, frequency response. Simple rectifier and modulator circuits. Analysis of a communication and a power system.

Lectures : 2 hours per week, two terms.

Lab. : 3 hours per week, two terms.

**633 Circuit Analysis.**

S. Kubina

Analysis of the response of linear circuits to steady and time varying currents and voltages; node and loop analysis; network theorems; Laplace transforms; poly-phase circuits.

Lectures : 2 hours per week, one term.

Lab. : 3 hours per week, one term.

**643 Electrical Engineering.**

D. Kaufman

Elements of three phase circuits. D. C. Machines, induction and synchronous machines and their terminal characteristics. Transistors, vacuum tubes and their equivalent circuits. Rectification and small signal amplifiers. Survey of a communications and dynamic measurement system. Feedback and control systems.

Lectures : 3 hours per week, one term.

Lab. : 3 hours per week, one term.



**653 Solid State Physics.**

C. K. Adkar

Elementary crystal structure. Waves in periodic media. Lattice vibrations. Free electron models. Thermionic emission. Energy bands. Semiconductors, conduction by holes and electrons, doping, junctions. Magnetic and dielectric properties of solids. Lectures : 3 hours per week, one term.

**654 Signal Processing.**

Mathematical representation for signals. Laplace Transforms, series expressions. Fourier transforms, amplitude and phase spectra, convolution and correlation methods, signal, sampling. Amplitude, frequency and phase modulation, demodulation, suppressed band systems, multiplexing, noise spectra, signal detection in the presence of noise.

Lectures : 3 hours per week, second term.

Ref : Lathi, "Signals, Systems and Communications"

Javid & Brenner, "Analysis, Transmission and Filtering of Signals"

**664 Electrical Machines.**

D. Kaufman

Electromechanical energy conversion and rotating electrical machines. Study of elements of 3-phase circuits and of D-C, induction, and synchronous machines and their terminal characteristics.

Lectures : 1 hour per week, first term.

Lab. : 3 hours per alternate weeks.

**MECHANICAL ENGINEERING****703 Experimental Engineering.**

K. I. Krakow

Theory and use of instruments; measurement of temperature, pressure, fluid flow, power; analysis of combustion products.

Lectures : 1 hour per week, second term.

Lab. : 2 hours per week, second term.

**714 Thermodynamics and Fluid Mechanics I.**

K. I. Krakow

Dimensional analysis; thermodynamics concepts, properties, processes laws and cycles; non-reacting and reacting mixtures; properties of fluids, hydrostatics, incompressible flow, continuity, conservation of momentum, conservation of energy, concept of laminar and turbulent flow; flow in pipes; introduction to heat transfer and heat exchangers.

Lectures : 2 hours per week, both terms

Problems : 2 hours per week, both terms.

**724 Thermodynamics and Fluid Mechanics II.**

K. I. Krakow

Thermodynamic relationships and cycles, gas compression; similitude; subsonic and supersonic compressible flow; potential flow theory, boundary layer theory; fluid machinery, open channel flow.

Lectures : 2 hours per week, both terms.

Problems : 2 hours per week, both terms.

**734 Mechanical Engineering Laboratory.**

K. I. Krakow

Experiments relating to thermodynamic fluid mechanics and heat transfer. Testing of mechanical equipment, fans, Diesel engine, reciprocating compressor, boiler, steam turbine, open channel flow, heat exchanger, etc.

Laboratory : 3 hours per week, both terms.

**744 Mechanical Engineering Laboratory.**

K. I. Krakow

Experiments relating to thermodynamics and fluid mechanics.

Laboratory : 3 hours per week, second term.

**MATERIALS SCIENCE****802 Materials Science I.**

J. E. Orr

A systematic approach to the study of properties and behaviour of engineering materials including, the fundamental properties of materials, metallic phases, multiphase materials, structural effects on properties, stability under service stresses; thermal, electrical, chemical properties and corrosion; organic and non-metallic materials.

Lectures : 2 hours per week for two terms.

**803 Materials Science II.**

J. E. Orr, K. I. Krakow

H. Wardell, C. Goldman

A theoretical and experimental study of metallic and non-metallic materials, their properties and processes used to control and alter their properties, their mechanical behaviour and experimental techniques used in investigating their behaviour, and the relation between mechanical behaviour and the physical and chemical properties of materials. Introduction to destructive and non-destructive testing using electrical strain gauge and photo stress techniques.

Lectures : 1 hour per week, first term.

Lab. : 3 hours per week for both terms.

**813 Materials Science III.**

C. Goldman

That part of Materials Science II relating to Strength of Materials.

Lab. : 3 hours per week, second term.

**823 Materials Science IV.**

That part of Materials Science II relating to Metallurgy.

Lectures : 1 hour per week, first term.

Lab. : 3 hours per week, first term.

## ENGLISH

A. G. Hooper, Professor (Chairman)  
 M. Blamar, Associate Professor  
 Rev. G. MacGuigan, S.J., Associate Professor  
 A. Newell, Associate Professor  
 S. C. Russell, Associate Professor (on leave)  
 A. T. Broes, Assistant Professor  
 P. Davies, Assistant Professor  
 G. Gross, Assistant Professor  
 L. P. Nowicki, Assistant Professor  
 M. R. Philmus, Assistant Professor  
 R. Philmus, Assistant Professor  
 A. Raff, Assistant Professor  
 A. N. Raspa, Assistant Professor  
 R. S. Wareham, Assistant Professor (on leave)  
 K. Waters, Assistant Professor  
 I. Webb, Assistant Professor  
 J. Adamson, Lecturer  
 T. C. Faulkner, Lecturer  
 R. K. Martin, Lecturer  
 S. Poteet, Lecturer  
 P. Salmon, Lecturer  
 D. Yates, Lecturer  
 J. L. Blacklock, Instructor  
 N. H. Brash, Instructor  
 C. W. Cockerline, Instructor  
 A. Fletcher, Instructor  
 L. Gold, Instructor  
 J. Iwasiw, Instructor  
 B. Jack, Instructor  
 E. Lecker, Instructor  
 J. Lerner, Instructor  
 L. MacIntyre, Instructor  
 D. O'Donnell, Instructor  
 J. P. Sullivan, Instructor  
 P. R. West, Instructor



### Courses leading to an Honours B.A. in English

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics English 101 French Two Electives	Classics 112 or 202 or 221 ENGLISH (Four electives from 210, 212, 215, 217, 320, 350, 360, 440, 520) Philosophy Two Electives	ENGLISH (The equivalent of three full courses from the list of Honours and Majors Courses*) Philosophy One Elective	ENGLISH (The equivalent of three full courses from the list of Honours and Majors Courses*) Theology One Elective

\*Honours Students must take the equivalent of one full Shakespeare Course; of one full pre-seventeenth century course (i.e. two half courses chosen from 110, 120, 225 and 330, of which at least one must be 110 or 120); of one full course from each of three of the following four areas: seventeenth century, eighteenth century, Romantics, and Victorians; and the equivalent of at least one other full course from the list of Honours and Majors courses.

### Courses leading to a B.A. with a Major in English

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics English 101 French Two Electives	Classics 112 or 202 or 212 or 221 ENGLISH (Four electives from 210, 212, 215, 217, 320, 350, 360, 440, 520) Philosophy French One Elective	ENGLISH (The equivalent of two full courses from the list of Honours and Majors course: Theology Two Electives	ENGLISH (The equivalent of two full courses from the list of Honours and Majors courses*) Philosophy Two Electives

\*Majors must take the equivalent of one full Shakespeare course, of one full course from the seventeenth or eighteenth centuries; of one full course from the Romantics or Victorians, and the equivalent of at least one other full course from the list of Honours and Majors courses.

NOTE 1: In the course of their four-year programme, all students must take at least two courses in Philosophy and two in Theology.

NOTE 2: Students will be encouraged to use electives either to build up a "minor", or to extend the number and scope of their courses in English or to take courses which are related to and supplement courses already chosen.

NOTE 3: Students planning to go on to graduate studies should consult members of the department in order to try to ensure that their choice of courses will satisfy the requirements of graduate schools.

NOTE 4: Students in their second year who are uncertain whether they will go on to take Honours or to Major in English are advised to satisfy the regulations for Majors by taking a second course in French in their second year.

NOTE 5: Apart from English 101, all course in the 100's are author courses, those in the 200's are period courses, in the 300's are genre courses, in the 400's are language courses, in the 500's are criticism courses, and in the 600's are "national" courses.

### 099 First Year. Full Course. Non-Credit. G. Gross and Staff

A course designed for those students who do not reach the desired level in the English Proficiency Test. It includes instruction in remedial reading, basic grammar and composition, and discussion of some literary texts.

Texts: to be announced.

3 hours per week for two terms.

### 101 First Year. Full Course. G. Gross and Instructors

A required course for all first year students in Arts, Commerce and Engineering, designed to bring the student to a greater understanding and deeper appreciation of some of the great literary works in English, and to a higher level of self-expression, both oral and written. The course consists of lectures, seminar discussion groups, and tutorials. Written themes will be required either weekly or fortnightly, depending on the skill and ability of the student.

Texts: to be announced.

3 hours per week (lecture — one hour; seminar — two hours) for two terms.

### COURSES NORMALLY RESTRICTED TO STUDENTS TAKING HONOURS, OR MAJORING, IN ENGLISH.

(In special circumstances, other students may be admitted to these courses with the permission of the professor concerned.)



**110 Chaucer. Half Course. An Elective for Third and Fourth Year Students. Second Term.** A. G. Hooper

A study of *The Canterbury Tales* in general, and of three or four tales in particular.  
3 hours per week.

**120 Spenser and his Background. Half Course. An Elective for Third and Fourth Year Students. First Term.**

M. R. Philmus

This course is intended to examine Spenser's works — the *Amoretti* and *The Faerie Queen* in particular — and their relations to the pertinent literary traditions, both English and continental.  
3 hours per week.

**130 Shakespeare. Full Course. For Third and Fourth Year Honours Students.** A. Newell

Shakespeare's plays — histories, tragedies, comedies — will be studied in relation to the Elizabethan theater and its tradition; the social, historical, and literary setting; Shakespeare's development as a dramatic artist; the body of Shakespearian criticism. An emphasis will be placed on appreciating each play as an individual creation.  
3 hours per week for two terms.

**133 Shakespeare. Full Course. For Third and Fourth Year Students majoring in English.** A. Newell

Shakespeare's plays — histories, tragedies, comedies — will be studied in relation to the Elizabethan theater and its tradition; the social, historical, and literary setting; Shakespeare's development as a dramatic artist; the body of Shakespearian criticism. An emphasis will be placed on appreciating each play as an individual creation.  
3 hours per week for two terms.

**134 Shakespeare. Full Course. For Third and Fourth Year Students majoring in English.** P. Davies

A study of Shakespeare's major plays with the emphasis on Shakespeare as a playwright working within a particular genre intended for stage production. Major tragedies, comedies, and histories will be studied for the purpose of determining how a Shakespearean play originally functioned and what it meant to Shakespeare's contemporaries.  
3 hours per week for two terms.

**135 Shakespeare. Half Course. For Third and Fourth Year Students.** A. Newell

Prerequisite: 130 half course of 1967-68. Second term.  
3 hours per week.

**\*\*210 English literature up to and including Milton. Half Course. An Elective for Second Year Students.**

A. Newell

First term, 3 hours per week.

**\*\*212 English Literature to 1660. Half Course. An Elective for Second Year Students.**

A. T. Broes

First term, 3 hours per week.

**\*\*215 English Literature Since 1660. Half Course. An Elective for Second Year Students.**

A. T. Broes

Second term, 3 hours per week.

**\*\*217 English Literature from Dryden to Hardy. Half Course. An Elective for Second Year Students.**

A. Raff

Second term, 3 hours per week.

**225 Elizabethan Literature. Half Course. An Elective for Third and Fourth Year Students. Second term.**

M. R. Philmus

This course is a thorough survey of Elizabethan non-dramatic literature; it is intended to study significant Elizabethan works both as individual creations and as examples of the most important trends in non-dramatic verse and prose of the time.  
3 hours per week.

**230 The Seventeenth Century. Full Course. An Elective for Third and Fourth Year Honours Students.** A. N. Raspa

A study of the poetry of the Metaphysical poets, Ben Jonson and Milton, and of the prose styles of Bacon, Browne and Donne. Special emphasis is placed on the literary forces converging in the works of these writers.  
3 hours per week for two terms.

**233 The Earlier Seventeenth Century. Full Course. An Elective for Third and Fourth Year Students majoring in English.** A. N. Raspa

A study of literary trends in the poetry and prose of select writers. Special emphasis is placed on the tradition of Metaphysical poetry and on Milton's *Paradise Lost*.  
3 hours per week for two terms.

\*\*These courses aim to provide the student with a knowledge of the traditions and development of English literature through a study of representative works, to enable him to elect his later programme wisely and to read with greater insight and appreciation.

**240 The Eighteenth Century: Swift and Johnson. Half Course. An Elective for Third and Fourth Year Honours Students. First term.** M. Blonar

A study of the important prose and poetry of Jonathan Swift and Samuel Johnson with emphasis on satire, all within the framework of social and literary Restoration and Eighteenth-Century England.

Texts: Swift, *Gulliver's Travels and Other Writing*, Riverside; Swift, *Selected Poems*, Collier-MacMillan; Johnson, *Rasselas, Poems and Selected Prose*, Holt, Rinehart, Winston; Boswell, *Life of Johnson*, Oxford.  
3 hours per week.

**242 The Eighteenth Century Novel. Half Course. An Elective for Third and Fourth Year Honours Students. Second term.** M. Blonar

An examination of the rise of the novel as a literary form, and of the social, political and literary situation in England which gave rise to it and which allowed for its development during the Eighteenth Century.

Texts: Addison and Steele, *Selections from The Tatler and The Spectator*, Holt, Rinehart, Winston; Richardson, *Pamela*, Norton; Fielding, *Joseph Andrews and Shamela*, Riverside; Fielding, *Tom Jones* (unabridged), Modern Library College Editions; Smollett, *Humphry Clinker*, Holt, Rinehart, Winston; Sterne, *Tristram Shandy*, Holt, Rinehart, Winston; Goldsmith, *The Vicar of Wakefield*, Pocket.  
3 hours per week.

**244 The Restoration and Eighteenth Century. Full Course. An Elective for Third and Fourth Year Students majoring in English.** T. C. Faulkner

After a brief introduction to the historical and Philosophical background, the major authors and genres are taken up. These include Restoration Comedy, John Dryden, Jonathan Swift, Alexander Pope, Samuel Johnson, James Boswell, Oliver Goldsmith and the novel. The object of the course is to give the student an adequate understanding of the nature and importance of neoclassic literature.  
3 hours per week for two terms.

**245 Restoration and Eighteenth Century Drama. Half Course. An Elective for Third and Fourth Year Honours Students. First term.** T. C. Faulkner

The course begins with an examination of the theatrical situation at the Restoration. Restoration Comedy and Heroic Drama are studied, with major emphasis being placed on the social and philosophical influences on the drama. The eighteenth-century genres of Sentimental Comedy, Farce, and Domestic Tragedy complete the course. The course is conducted as a seminar, with students presenting reports and preparing papers based on their research and study.

3 hours per week.

**247 Dryden and Pope. Half Course. An Elective for Third and Fourth Year Honours Students. Second term.**

T. C. Faulkner

The course begins with a brief study of the historical and philosophical background of the Restoration. The works of John Dryden are studied in depth, with major emphasis being placed on the relationships between the literature and the historical and philosophical context. The poetical traditions of the Eighteenth Century and the works of Alexander Pope are studied in the second half of the course. The course is conducted as a seminar, with students presenting reports and preparing papers based on their research and study.

3 hours per week.

**250 The Rise of Romanticism. Half Course. An Elective for Third and Fourth Year Students. First term.** R. Philmus

A two-part study of the Romantic poets will begin by examining the crucial works of Blake, Wordsworth, and Coleridge, partly with attention to the connection between their poetic practice and that of their predecessors. Emphasis will fall on understanding the views of these three poets concerning the nature of poetry. These views will be considered in the course of their development; and in the instance of Wordsworth that development will be related to subsequent trends in English poetry.

3 hours per week.

**252 The Romantics, One Generation Later. Half Course. An Elective for Third and Fourth Year Students. Second term.** R. Philmus

On the basis of what was learned in ENGLISH 250, an attempt will be made to define the similarities and contrasts between the older generation of Romantic poets and the new generation, as represented by Byron, Shelley, and Keats. The course will also be concerned, however, with the characteristics of the poetry of these three most important poets of the new generation which distinguish them from one another.

3 hours per week.

NOTE: Students who have not taken 250 will be admitted to 252 only with the special permission of the professor.

**254 Forms of the Fantastic in Romantic Literature. Half Course. An Elective for Third and Fourth Year Students. First term.** S. Poteet

An examination of one essential and influential aspect of the Romantic movement in English literature, as seen in the works of Blake, Byron, De Quincey, the Brontës, and others.

3 hours per week.



**270 Nineteenth Century Literature. Full Course. An Elective for Third and Fourth Year Students.** A. Raff

The literature of the Victorian period, with emphasis on major poets and representative novelists. Attention will be equally divided between the nature and development of the Victorian viewpoint and the aesthetic qualities of the works examined.  
3 hours per week for two terms.

**272 Victorian Poetry. Half Course. An Elective for Third and Fourth Year Students. First term.** A. Raff

For 1968-69 the poetry of Browning and Swinburne will be emphasized. Poems by Tennyson, Arnold, Fitzgerald, D.G. Rossetti, and Morris will also be studied.  
3 hours per week.

**273 Nineteenth Century Fiction. Full Course. An Elective for Third and Fourth Year Students.** I. Webb

Aspects of the novel from 1790 to 1910, emphasizing the relations between fiction and the political and social landscape. Some of the basic political texts and the literary treatment of central problems will be studied. Readings will include: *Caleb Williams*, *Heart of Midlothian*, *Felix Holt*, *The Egoist*, *Hard Times*, *Bleak House*, *Nostramo*, *Princess Casamassima*.  
3 hours per week for two terms.

**274 Late Victorian and Edwardian Literature. Half Course. An Elective for Third and Fourth Year Students. Second term.** S. Poteet

Readings in the "aesthetic" movement (Pater, Wilde, Hopkins, Yeats) and the English novel around the turn of the century (Butler, Conrad, Forster, Hardy).  
3 hours per week.

**280 Twentieth Century British Literature. Half Course. An Elective for Third and Fourth Year Students. First term.** K. Waters

A study of literary concerns and forms in the early Twentieth Century through representative works by Conrad, Shaw, Lawrence, Joyce and Yeats.  
3 hours per week.

**285 Twentieth Century British Literature. Half Course. An Elective for Third and Fourth Year Students. Second term.** K. Waters

British writers from the mid 1920's to the present, from among Forster, Woolf, Huxley, Waugh, Greene, Eliot, Auden, Thomas, Beckett, Osborne, Pinter, Angus Wilson, Murdoch.  
3 hours per week.

**320 Drama. Half Course. An Elective for Second Year Students. Offered in both terms.** P. Davies

A study of drama, focusing on the major movements of the twentieth century, including an examination of realistic drama and the various reactions against it. Plays by Ibsen, Strindberg, Chekhov, Shaw, Pirandello, Lorca, Brecht, Ionesco, Pinter and Albee will be studied in order to explore the nature of drama as a genre.  
3 hours per week.

**330 Elizabethan and Jacobean Drama. Half Course. An Elective for Third and Fourth Year Students. First term.** A. G. Hooper

Plays by some of the following will be studied: Kyd, Marlowe, Lyly, Heywood, Jonson, Webster, Tourneur, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford.  
3 hours per week.

**350 Fiction. Half Course. An Elective for Second Year Students. Offered in both terms.** L. P. Nowicki

A study of the English and American novel from its origin in the Eighteenth-Century to the present. Representative novels are analyzed to illustrate the development of form and technique.  
3 hours per week for one term.

**360 Poetry. Half Course. An Elective for Second Year Students. Offered in both terms.** K. Waters

The course attempts to understand the nature of poetry and poetic experience through examining the elements of a poem (broadly, language, rhythm and structural patterns) by practical analysis, criticism, short essays upon and class discussion of a number of poems. Some attention will be given to the dominant poetic theories and lyric forms from the Renaissance to the present. A central anthology, together with supplementary paperbacks of poetry and of commentary, will be used.  
3 hours per week.

**440 Classical Rhetoric. Half Course. An Elective for Second Year Students. Offered in both terms.** G. MacGuigan

The course proposes to make the student familiar with the classical rhetorical tradition, and to improve his writing by directing his attention to the fundamental patterns of thinking and the structural elements of style.  
Texts: Aristotle, *Rhetoric*; Beardsley, *Practical Logic*; Whitehall, *Structural Essentials of English*; Read, *English Prose Style*.  
3 hours per week.

**520 Practical Criticism. Half Course. An Elective for Second Year Students. Offered in both terms.** A. G. Hooper

This course is designed (i) to lead students to consider how man uses language to communicate, (ii) to attempt to integrate the teaching of language and the teaching of literature, and (iii) to develop discrimination.  
3 hours per week.

**620 American Literature: Major American Writers of the Nineteenth Century. Half Course. An Elective for Third and Fourth Year Students. First term.** R. K. Martin

Emphasis on Hawthorne, Melville, Whitman, Dickinson and Twain.  
3 hours per week.

**625 American Literature, 1890-1960. Half Course. An Elective for Third and Fourth Year Students. Second term.** L. P. Nowicki

A study of the development of American literature from the 1890's to the present. Emphasis will be placed upon major American prose writers of the Twentieth-Century to be chosen from the following: Crane, Norris, Cather, Anderson, Fitzgerald, Hemingway, Faulkner, Dos Passos, West, Steinbeck, Wolfe, Mailer, Salinger, Updike, Bellow, and Malamud.  
3 hours per week for one term.

**COURSES FOR GENERAL ARTS, SCIENCE, AND COMMERCE STUDENTS: ELECTIVES FOR HONOURS AND MAJORS**

NOTE: STUDENTS MAY TAKE ONE FULL COURSE OR TWO HALF COURSES. SCIENCE STUDENTS MAY TAKE ENGLISH 101, IF THEY WISH, INSTEAD OF ONE OF THE FOLLOWING COURSES:

**282 Modern English and American Literature. Full Course.**

R. Philmus

This course will attempt to instill an appreciation of poetry and fiction by examining at length and in detail some of the valued and significant works written in English from Whitman to the present.  
3 hours per week for two terms.

**283 The Modern Sensibility. Full Course.**

R. Philmus

To determine some of the elements of the modern sensibility, this course will trace that sensibility from its origin in the nineteenth century through the middle of this century by concentrating on representative works of English and American literature.  
3 hours per week for two terms.

**284 The Twentieth Century British Novel. Half Course. Offered in both terms.**

A. T. Broes

Readings will include: Hardy, *Jude the Obscure*; Conrad, *Lord Jim*; Joyce, *A Portrait of the Artist*; Lawrence, *Women in Love*; Greene, *The Power and the Glory*; Waugh, *A Handful of Dust*; Cary, *The Horse's Mouth*; Golding, *The Inheritors*.  
3 hours per week.

**286 Twentieth Century Fiction. Full Course.** A. Raff

British and American novels and short stories from 1890 to the present. Attention will be concentrated on the authors' varied assessments of modern life and on their evolvment of techniques to express their age and themselves.

Readings include: Hardy, *Tess of the d'Urbervilles*; Wells, *The Time Machine*; Conrad, *Heart of Darkness*; Lawrence, *Sons and Lovers*; Joyce, *Portrait of the Artist*; Hemingway, *In Our Time*; Fitzgerald, *The Great Gatsby*; Faulkner, *As I Lay Dying*; West, *Miss Lonelyhearts*; Waugh, *A Handful of Dust*; Greene, *Brighton Rock*; Cary, *The Horse's Mouth*; Malamud, *The Natural*; Bellow, *Seize the Day*.

3 hours per week for two terms.

**287 Twentieth Century British Literature. Full Course.**

K. Waters

Works by Butler, Wilde, Conrad, Shaw, Yeats, Eliot, Bennett, Lawrence, Joyce, Forster, Woolf, Waugh, Sillitoe, Osborne, Pinter. Emphasizing close study of the texts themselves, the course will consider also their relationship to prevailing and developing cultural theories and associated literary movements.

3 hours per week.

**288 Twentieth Century British Literature. Full Course.**

R. K. Martin

Readings in the works of leading British writers, starting with Oscar Wilde, Henry James, and Joseph Conrad, and including works up to Harold Pinter.

3 hours per week for two terms.

**289 Readings in the Twentieth Century Novel. Full Course.**

A. N. Raspa

A study of the development of the modern novel in the works of Conrad, Hemingway, MacLennan, and Greene, among other writers.  
3 hours per week for two terms.

**297 Twentieth Century Political Literature. Full Course.**

I. Webb

Readings will include some of the following: poetry of the first world war (Sassoon, Owen, Graves); David Jones' *In Parenthesis*; the thirties in Britain: Auden, Spender, and MacNeice; the thirties in the U.S.: Dos Passos' *USA*, *A Cool Million*, *Grapes of Wrath*; *Nineteen Eighty-Four*. *Brave New World*, *Darkness at Noon*; the second world war: Lowell, Dickey, *The Plague*, *The Naked and the Dead*; *Catch-22*; post-war: *The Tin Drum*, *Jealousy*, *Lucky Jim*, *Loneliness of the Long Distance Runner*, *Herzog*, *Go Tell It on the Mountain*, *Invisible Man*, Black Mountain poets.

3 hours per week for two terms.



**327 Drama: Tragedy. Half Course. First term.** P. Davies

A study of major Tragedies from the Renaissance to Modern Times aimed at understanding what the tragic vision is and the various forms it has taken. Tragedies will be selected from the works of Marlowe, Shakespeare, Webster, Racine, Rowe, Goethe, Schiller, Kleist, and several modern figures.  
3 hours per week.

**328 Drama: Comedy. Half Course. Second term.** P. Davies

A study of major Comedies from the Renaissance to Modern Times aimed at understanding the techniques and conventions of Comedy. Comedies will be selected from the works of Dekker, Shakespeare, Jonson, Molière, Wycherley, Sheridan, and Shaw.  
3 hours per week.

**347 Satire. Full Course.** T. C. Faulkner

Literature as social and political criticism from ancient Rome to twentieth-century America. Authors studied will include Horace, Chaucer, Shakespeare, Swift, Voltaire, Byron, Thackeray, Waugh, Amis, Arden, and Fry.  
3 hours per week for two terms.

**354 Modern Fiction. Full Course.** J. Adamson**357 The Psychological Novel. Half Course.**  
**Offered in both terms.** L. P. Nowicki

Study of the development of the modern psychological novel from the late Nineteenth-Century to the present, with emphasis upon the interrelationship of psychology and literature. Close analysis of the tendency to portray the subjective world by means of dream, interior monologue, and stream of consciousness will be stressed.  
3 hours per week.

**358 The Art of Modern Fiction. Full Course.** S. Poteet

Readings in the shorter fiction of several modern novelists, mainly English and American (James, Conrad, Joyce, Lawrence, Hemingway, Fitzgerald, Camus, Mailer, and Ellison).  
3 hours per week for two terms.

**364 Modern Poetry. Half Course.**  
**Offered in both terms.** P. Salmon**367 The English Lyric. Full Course.** M. R. Philmus

The course is intended to illustrate the English traditions in lyric poetry, from the Renaissance to the present. The principal aim of the course is to familiarize the student with (i) the structures and styles of the English lyric, and (ii) the basic critical approaches to its appreciation.  
3 hours per week for two terms.

**377 Literature, Ideas and Myths. Full Course.**  
(Not offered in 1968-69)**382 Epic Forms in Modern Fiction. Half Course. First Term.**  
M. R. Philmus

The course is designed to examine epic structures and modes in representative works of English and American fiction of the nineteenth and twentieth centuries.  
3 hours per week.

**383 The Bildungsroman Since Goethe. Half Course.**  
**Second Term.** M. R. Philmus

The course will attempt to determine the changing patterns in the theme of initiation into adult experience in nineteenth and twentieth-century fiction. Attention will be concentrated on English and American works, but some of the most representative continental examples will also be discussed.  
3 hours per week.

**627 American Literature Since World War I. Half Course.**  
**Offered in both terms.** R. K. Martin

Emphasis on the major modern American novelists, such as Hemingway, Fitzgerald and Faulkner, and an introduction to the contemporary American literary scene.  
3 hours per week.

**628 Twentieth-Century American Fiction. Half Course.**  
**First Term.** L. P. Nowicki

The works of F.S. Fitzgerald, Ernest Hemingway, and William Faulkner will be studied against the background of the historical contexts in which they were written. Emphasis will be placed upon an intensive analysis of the artistic and intellectual development of these three major writers.  
3 hours per week.

**629 The Modern American Novel. Full Course.** A. T. Broes

A study of major twentieth-century American novels with some attention to their nineteenth-century antecedents. Readings will include: Melville, *Billy Budd*; Clemens, *The Adventures of Huckleberry Finn*; Dreiser, *Sister Carrie*; Hemingway, *A Farewell to Arms*; Fitzgerald, *The Great Gatsby*; Faulkner, *As I Lay Dying*; Styron, *Lie Down in Darkness*; West, *Miss Lonelyhearts*; O'Connor, *Wise Blood*; Ellison, *The Invisible Man*; Malamud, *The Fixer*; Bellow, *Henderson the Rain King*; Wallant, *The Pawnbroker*.  
3 hours per week for two terms.

**637 Comparative Literature. Half Course. Second Term.**  
R. K. Martin

An introduction to major works of literature in languages other than French and English. Intended as background for students of French or English literature. Readings in authors such as Goethe, Thomas Mann, Bertolt Brecht, Dostoevsky, Tolstoy and others.  
3 hours per week.

**647 Canadian Literature. Full Course.** P. Salmon**648 Canadian Literature. Full Course.** J. Adamson

## FRENCH STUDIES — ÉTUDES FRANÇAISES

Arsène Lauzière, Professor (Chairman)  
 Gustave Labbé, Professor  
 Paul Toupin, Professor  
 Gaston Laurion, Associate Professor  
 Margaret Andersen, Associate Professor  
 Paule Gagnon-Leduc, Assistant Professor  
 Leonard Sugden, Assistant Professor  
 Gottlieb Andersen, Assistant Professor  
 César Rouben, Assistant Professor  
 Martin Riegel, Assistant Professor  
 David Lévy, Assistant Professor  
 Jean-Claude Badin, Assistant Professor  
 Jean-Claude Klein, Assistant Professor  
 John Makriss, Assistant Professor  
 Maylis Tiffou, Lecturer  
 Marthe Catry, Lecturer  
 Lila Van Toch, Lecturer  
 Gilles Charpentier, Lecturer  
 Annie Maillot, Lecturer  
 Odette Rigault, Lecturer  
 Marie-France Ligier, Lecturer  
 Catherine Verron, Lecturer  
 Normand Truchon, Lecturer  
 Jean-Pierre Boucher, Lecturer  
 Vincent Nadeau, Lecturer  
 Zobeidah Youssef (on study leave) Lecturer,  
 Alain Bartho, Sessional Instructor  
 Gilbert Mongenot, Sessional Instructor  
 François Ullman, Sessional Instructor  
 Ross Dolinsky, Supervisor and Technician (Language Lab.)  
 Guy Robitaille, Technician (Language Lab.)

### PREAMBLE

A First Year course in French (on one of five levels: F-100, 120, 124, 128 or 130) is a prerequisite for any further course in French. Students who have four years of High School French and are newcomers to Loyola may not take French 100 or 120 for credit purposes. The level of these students is to be further ascertained by means of a placement test (written and oral) which is compulsory and which is to be held September 4 and 5. Newcomers will then be registered in the course level indicated by the Department.

Students with less than four years of High School French will not take the placement test unless they wish to do so. Those with one to three years of French will be directed automatically to French 120; those who have no knowledge whatsoever will be directed automatically to French 100.

There will be a full two-week control period in class during which professors will ensure that students have been assigned to their proper level. Professors may recommend a change of level (F-124, 128 and 130) before final registration becomes operative. Students will then be requested to buy *all* of their

textbooks at once. Freshmen are strongly urged to buy Harrap's *Shorter French and English Dictionary* for languages courses and Quillet's *French Dictionary* for literature courses.

Students proceeding to the B.Sc. are required to take only the first year course in French. Those proceeding to the B.Comm. and those proceeding to the B.A., but who do not select French as an area of concentration (major) or specialization (Honours), are required to take two French language courses, but may be permitted to take French literature instead, depending on their knowledge of the language. Finally, those proceeding to a B.A., who elect to major or to honour in French, shall take two language courses in their 3rd and 4th years, F-328 and F-428, and any of 6 (major) or 8 (honours) literature courses. However, all Arts Honour students, except French, may take a Second Year course in the Department as an elective only if this is possible.

All courses are conducted in French. There is a limit of 25 students per section in any given language course. The teaching is based more and more on the new discipline of Applied Linguistics which affords an up-to-date dynamic methodology in language teaching. The Language Laboratory is a valued auxiliary means with modern scientific teaching facilities.

Students in some 1st and 2nd year courses will attend laboratory sessions on a compulsory basis; other students may be required to attend similar sessions at the request of their professors. The Department is using more and more audio-visual means and methods (such as V.I.F. or *Voix et Images de France*). Term work is worth 60% and examinations 40% of the final mark.

The Department aims at more than sound progress in speaking and writing French fluently; it strives to create a life-like atmosphere in and out of class.

Courses leading to a B.A. with a Major in French			
FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102, 111, 112 or 121 English 101 FRENCH 128 or 130 Two electives (1st yr: 5 courses;	Classics 112, 202, 212 or 221 English FRENCH 224, 228 or any other in the 200s, 300s or 400s Philosophy *(see below) One elective 2nd yr: 6 courses;	FRENCH 328 FRENCH (two from 230, 240, 250, 260 or any other in the 300s or 400s Philosophy *(see below) 3rd yr: 5 courses	FRENCH 428 FRENCH (two from 230, 240, 250, 260 or any other in the 300s or 400s *(see below) One elective 4th yr: 5 courses)
Courses leading to an Honours B.A. in French			
FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102, 111, 112 or 121 English 101 FRENCH 130 Two electives (1st yr: 5 courses;	English FRENCH (two from 228, 230, 240, 250, 260, the 300s or the 400s Philosophy *(see below) One elective 2nd yr: 6 courses;	FRENCH 328 FRENCH (three from 230, 240, 250, 260 or the 300s & 400s Philosophy 3rd yr: 5 courses;	FRENCH 428 FRENCH (two from 230, 240, 250, 260 or the 300s & 400s *(see below) One elective 4th yr: 5 courses)

\*Two theology courses must be taken over the four years; if Theology has been chosen as a First Year Elective, another Theology course may be taken at this time or later when possible; if Theology is not an elective at this time, students would do well to take one in line with their field of concentration.

NB: In the case of a student having had a high mark in F-124, he may be considered for a Major in French; one with a high mark in F-224, for an Honours in French.



**100 Language: Basic French**

A. Bartho &amp; Staff

An introduction to French using the method "*Voix et Images de France*". A lecture and laboratory course restricted to students with no previous knowledge of French and may not be taken for credit by students who have four years of High School French.

3 hours per week for two terms.

**120 Language: Elementary French**

G. Mongenot &amp; Staff

Teaching French using the method "*Voix et Images de France*" (premier degré). A lecture and laboratory course restricted to students who have less than four years of High School French. A no-credit course for students with four years of High School French.

3 hours per week for two terms.

**124 Language: Fluent Normative French.**

C. Rouben &amp; Staff

Spoken and written patterns. Phonetics, structural grammar, composition and selected readings. A lecture and laboratory course for students who have completed successfully four years of High School French.

3 hours per week for two terms.

**128 Language: Advanced French.**

M. Andersen &amp; Staff

Review of structural grammar, corrective phonetics, oral and written composition. Selected readings and discussion therefrom. *Explication de textes*. A lecture and part-time laboratory course for students who have a good knowledge of French.

3 hours per week for two terms.

**130 Littérature**

Laurion et collègues

Initiation à la littérature par l'étude d'une quinzaine de textes: oeuvres et morceaux choisis des XIXe et XXe siècles français. Aperçu sur les genres et les mouvements littéraires de ces époques. Technique de l'analyse littéraire et de la dissertation littéraires.

A literature survey course for freshmen who have a sound French schooling background of some ten years or its equivalent. A compulsory course for those who intend to honour in French.

3 hours per week for two terms.

Textes: Hugo, *Hernani*; Balzac, *Eugénie Grandet*; Gide, *La Symphonie pastorale*; Camus, *L'Étranger*; Sartre, *Huis Clos*; Lagarde et Michard, *XIXe et XXe Siècles*; Grevisse, *Précis de grammaire française*; Quillet, *Dictionnaire usuel*.

**200 Language.**

G. Mongenot &amp; A. Bartho

The second half of "*Voix et Images de France*" (premier degré). A lecture and laboratory course. Prerequisite: French 100.

3 hours per week for two terms.

**220 Language.**

L. Van Toch &amp; Staff

A follow-up on F-120 with *Voix et Images de France*. A lecture and laboratory course. Prerequisite: French 100.

NB: students with less than four years of High School French who register as newcomers in their second year at Loyola may be directed to the old F-220 course as offered in 1967-68.

**224 Language.**

J.-C. Klein &amp; Staff

Corrective phonetics, contextual syntax and idiomatic French. Contemporary readings illustrating French life with discussion and composition thereon. A lecture course with sessions of a practical nature.

Prerequisite: French 124 or equivalent in Departmental test.

3 hours per week for two terms.

**228 Language and Civilization.**

P. Leduc &amp; Staff

Introduction to comparative stylistics. Vocabulary expansion by word formation and derivation, by synonymy and idiomatic structures. Oral and written composition through readings and realia of French Canadian civilization. A lecture and practice course.

Prerequisite: French 128 or equivalent in Departmental test.

3 hours per week for two terms.

**230 Littérature: Le Moyen-Age**

G. Laurion

Oeuvres épiques, courtoises, satiriques et lyriques. Théâtre religieux et comique. Condition préalable: le cours F-130 ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: *La Chanson de Roland*, *Tristan et Iseut*, *Le Roman de Renart*, *Le Miracle de Théophile*, *La Farce de Maître Pathelin*; Villon, *Le Grand Testament*; Lagarde et Michard, *Moyen-Age*; Quillet, *Dictionnaire usuel*.

**240 Littérature: La Renaissance et le XVIe Siècle.**

M. Riegel

L'humanisme français. Poésie et prose: origines, évolution, oeuvres maîtresses. Condition préalable: le cours F-130 ou la permission du directeur de département. Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Rabelais, *Gargantua et Pantagruel*; Montaigne, *les Essais*; du Bellay, *Regrets*; Ronsard, *les Amours*; D'Aubigné, *les Tragiques* (livre VII: *Jugement*). Lagarde et Michard, *le XVIe Siècle*; Quillet, *Dictionnaire usuel*.

**250H Littérature: le XVIIe Siècle ou le Classicisme français.**

J. Mackriss et D. Lévy

L'esprit classique. L'honnête homme. Moralistes, auteurs dramatiques, romanciers. Condition préalable: le cours F-130 ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Pascal, *les Pensées*; Boileau, *l'Art poétique*; La Bruyère, *les Caractères*, La Rochefoucauld, *Maximes*; La Fontaine, *les Fables*; Bossuet, *Oraison funèbre de Condé*; La Fayette, *la Princesse de Clèves*, Corneille, *Horace*; Racine, *Andromaque*; Molière, *Don Juan*, Lagarde et Michard, *XVIIe Siècle*.

**260H Littérature: le XVIIIe Siècle ou le Siècle des lumières.**

C. Rouben

Règne de la raison et réveil de la sensibilité.

Condition préalable: le cours F-130 ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Lesage, *Gil Blas*; Marivaux, *Le Paysan Parvenu*; Prévost, *Manon Lescaut*; Montesquieu, *Lettres Persanes*; Voltaire, *Lettres Philosophiques*, *Zadig*, *Candide*; l'*Encyclopédie*; Diderot, *le Neveu de Rameau*; Rousseau, *Confessions*, *Emile*; Bernardin de Saint-Pierre, *Paul et Virginie*; Lagarde et Michard, *le XVIIIe Siècle*, Quillet, *Dictionnaire usuel*.**328H Langue: Stylistique et Création Littéraire.**

P. Toupin, M. Catry

Etude des procédés de style. Phonétique et diction. Travaux de création littéraire. Analyse stylistique de textes littéraires. Eléments de stylistique comparée du français et de l'anglais. Condition préalable: le cours F-228 ou la permission du directeur de département. Cours obligatoire pour tout étudiant inscrit à une concentration ou spécialisation en français (major ou honours): 3 h. par semaine. Textes: Courault, *l'Art d'écrire* (2 tomes); Vinay et Darbelnet, *Stylistique comparée du français et de l'anglais*; Harrap, *Shorter French and English Dictionary*; quelques autres textes au choix des professeurs.

**330H Littérature: le roman français au XIXe Siècle.**

A. Lauzière

Evolution et étude d'oeuvres romanesques romantiques, réalistes, naturalistes et fin de siècle. Condition préalable: un cours de littérature de deuxième année ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Chateaubriand, *René*; Constant, *Adolphe*; Vigny, *Servitude et grandeur militaires*; Balzac, *le Père Goriot*; Stendhal, *le Rouge et le Noir*; Flaubert, *Madame Bovary*; Zola, *Germinal*; Huysman, *A. Rebours*; Bourget, *le Disciple*; Lagarde et Michard, *XIXe Siècle*.**340H Littérature: la poésie française au XIXe Siècle.**

A. Lauzière

Visage de l'homme à travers sa poésie. Les grandes générations et leurs oeuvres. Condition préalable: un cours de littérature de deuxième année ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Lamartine, *les Méditations*; Hugo, *les Contemplations*; Vigny, *les Destinées*; Baudelaire, *les Fleurs du Mal*; Rimbaud, *Bateau ivre*; Verlaine, *Romances sans paroles*; Mallarmé, *l'Après-midi d'un faune*; Lagarde et Michard, *XIXe Siècle*.**350 Littérature: l'art dramatique.**

P. Toupin, M. Catry

Historique du théâtre. Eléments du théâtre. Diction. L'une des deux pièces qui feront l'objet principal du cours sera présentée en spectacle au terme du second trimestre de l'année universitaire. On ne s'inscrit qu'avec l'approbation du Département.

Leçons, laboratoires, travaux pratiques: 3 h. par semaine.

Textes: au choix du directeur. Une pièce de Giraudoux et une pièce de Ionesco.

**360H Littérature canadienne: le roman et le conte.**

A. Lauzière et P. Leduc

Origines, influences, évolution. Etude d'oeuvres modernes. Condition préalable: le cours F-130 ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Savard, *Menaud, maître-draveur*; Ringuet, *Trente arpents*; Roy, *Bonheur d'occasion*; Lemelin, *Les Plouffe*; Giroux, *Au-delà des visages*; Langevin, *Poussière sur la Ville*; Thériault, *Agaguk*; Bessette, *Le Libraire*; Blais M.-C., *Une Saison dans la vie d'Emmanuel*; Contes choisis.**365H Littérature canadienne: la poésie et le théâtre.**

G. Labbé

Origines, évolution, influences. Etudes d'oeuvres. Condition préalable: le cours F-130 ou la permission du directeur de département. Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: (Collection Classiques Canadiens): Fréchette, *Choquette*; Nelligan, *Poésies Complètes*; Desrochers, *A l'Ombre de l'Orford*; Saint-Denis Garneau, *Poésies Complètes*; Grandbois, *Rivages de l'homme*; Hébert, *Poèmes* (Seuil); Giguère, *l'Adorable Femme des Neiges*; Lapointe, *G. Ode au Saint-Laurent*; Vigneault, *Choix de Poèmes*. Théâtre: Gélinas, Toupin, Dubé, Languirand. Tougas, *Histoire de la littérature canadienne-française*; Sylvestre, *Anthologie de la poésie canadienne-française*.**380 Littérature comparée: les grands courants de la littérature moderne.**

M. Andersen

Etude comparée de quelques grandes oeuvres des XIXe et XXe siècles. Condition préalable: F-130 ou un cours de littérature de la deuxième ou troisième année ou la permission du directeur de département.

Cours, séminaires et conférences de professeurs invités: 3 h. par semaine. Les cours et discussions se feront en français. Les textes français seront lus en français; les textes anglais en anglais; les autres textes dans leur traduction française, sinon dans l'original.

Textes: Goethe, *Les Souffrances du jeune Werther*; Stendhal, *La Chartreuse de Parme*; Baudelaire, *Curiosité esthétique*; Tourgueniev, *Pères et enfants*; Ibsen, *La Maison de poupée*; Kafka, *Le Procès*; Brecht, *Homme pour homme*; Lorca, *Noces de sang*; Camus, *L'Exil et le royaume*; Beckett, *En attendant Godot*.



**428H Langue: Histoire de la langue et linguistique.**

M. Riegel

Histoire de la langue française. Introduction aux sciences de la linguistique. Suite à la stylistique du cours F-328. Condition préalable: le cours F-328.

Leçons et séances de travaux pratiques.

Cours obligatoire pour tout étudiant inscrit à une spécialisation en français (major ou honours): 3 h. par semaine.

Textes: au choix du professeur.

**430H Littérature: le roman français au XXe Siècle.** G. Labbé

Evolution du roman contemporain. Les grandes oeuvres.

Condition préalable: un cours de littérature de 2e ou 3e année ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Fournier, *Le Grand Meaulnes*; Gide, *La Porte étroite*; Proust, *Du Côté de chez Swann*. Le roman fleuve. Mauriac, *Thérèse Desqueyroux*; Bernanos, *Journal d'un curé de campagne*; Green, *Moira*; Malraux, *La Condition humaine*; Camus, *l'Etranger*; Sartre, *la Nausée*. Le nouveau roman. Lagarde et Michard, *XXe Siècle*.

**440H Littérature: la poésie française au XXe Siècle.** P. Leduc

Voies nouvelles. Langage et poésie. Approximations. Condition préalable: un cours de littérature de 2e ou 3e année, préférablement le cours F-340, ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Valéry, *Poésies* (Gallimard); Apollinaire, *Alcools*; Breton, *Clair de terre* (Gallimard); Eluard, *Capitale de la douleur* (Gallimard); Char, *Le poème pulvérisé*; Michaux, *Plume* (Gallimard); Ponge, *Le parti-pris des choses* (Gallimard); Breton, *Les manifestes du surréalisme*; Lagarde et Michard, *XXe Siècle*.

**450H Littérature: le théâtre français à travers les siècles.**

P. Toupin

L'histoire et l'analyse des grandes oeuvres de la scène française. Condition préalable: un cours de littérature de 2e ou de 3e année ou la permission du directeur de département.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: Corneille, *Polyeucte*, Molière, *L'Ecole des Femmes*; Racine, *Britannicus*; Marivaux, *Le Jeu de l'amour et du hasard*; Beaumarchais, *Le Mariage de Figaro*; Hugo, *Ruy Blas*; Musset, *Le Chandelier*; Claudel, *L'Otage*; Montherlant, *Le Maître de Santiago*; Giraudoux, *La Guerre de Troie n'aura pas lieu*; Sartre, *Huis-Clos*; Genêt, *Haute Surveillance*; Ionesco, *La Leçon*.

**470 Civilisation et culture: le monde français.** J.-C. Badin

Unité et diversité. Principales caractéristiques. Institutions et réalisations importantes: langue, esprit, moeurs, arts, politique, commerce, industries, etc. La France et le Canada. Condition préalable: la permission du directeur de département.

Cours facultatif pour tout étudiant de 3e ou de 4e année de toute faculté non inscrit au baccalauréat français spécialisé.

Leçons et séances de travaux pratiques: 3 h. par semaine.

Textes: choisis parmi les meilleurs pages des lettres françaises ou étrangères. Documentation sonore et cinématographique.

**GEOTECHNICAL SCIENCE**

D. J. McDougall, Professor (Chairman)

E. H. Chown, Assistant Professor

J. T. Jenkins, Assistant Professor

K. K. Mukherji, Assistant Professor

M. MacFarlane, Sessional Lecturer

J. W. Manconi, Post Doctoral Research Fellow.

Courses leading to a B.Sc. with a Major in Geotechnical Science			
FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR***
Chemistry 101	Chemistry 211	Chemistry 231	English
Chemistry 102	Chemistry 212	Engineering 802	GEOT. Sc. 310
French	GEOT. Sc. 203	GEOT. Sc. 305	GEOT. Sc. 405
Mathematics 120	GEOT. Sc. 204	GEOT. Sc. 307	GEOT. Sc. 406
Mathematics 131	GEOT. Sc. 205	GEOT. Sc. 401	GEOT. Sc. 407
Physics 101	GEOT. Sc. 303	GEOT. Sc. 403	GEOT. Sc. 408
Theology	GEOT. Sc. 304	**GEOT. Sc. 404	GEOT. Sc. 410
*One Elective (in second term) from:	Mathematics 121	GEOT. Sc. 409	Philosophy or Theology
Biology 101	Philosophy	Philosophy	
Geot. Sc. 202	Theology	Physics 205	
Mathematics 121			

\*Those students wishing to continue in Geotechnical Science will normally choose Geotechnical Science 202 as their first year Elective.

\*\*Will not be given after 1968-1969.

\*\*\*In the Fourth Year, qualified students may be permitted to take additional courses in either Chemistry, Engineering, Mathematics or Physics.

**Courses of the General Science Programme in Geotechnical**

Science leading to a B.Sc.			
FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101	Chemistry 211	Chemistry 231	English
Chemistry 102	Chemistry 212	GEOT. Sc. 305	GEOT. Sc. 406
French	GEOT. Sc. 203	GEOT. Sc. 401	and either (a), (b) or (c)
Mathematics 120	GEOT. Sc. 204	GEOT. Sc. 404**	(a) GEOT. Sc. 407
Mathematics 131	GEOT. Sc. 205	GEOT. Sc. 405	One Science Elective***
Physics 101	Mathematics 121	Philosophy	(b) GEOT. Sc. 310
Theology	Philosophy	One Science Elective***	GEOT. Sc. 409
*One Elective (in second term) from:	Theology		One Science Elective***
Biology 101			(c) GEOT. Sc. 303
Geot. Sc. 202			GEOT. Sc. 410
Mathematics 121			Philosophy or Theology

\*Those students wishing to continue in Geotechnical Science will normally choose Geotechnical Science 202 as their First Year Elective.

\*\*Will not be given after 1968-1969.

\*\*\*Elective chosen must be approved by Department.

**FIELD TRIPS AND FIELD SCHOOLS**

Lectures and laboratory cannot successfully substitute for actual observation of geology in the field. Therefore, for all students, half or full day field trips to areas of geological interest are a normal adjunct to several courses. For students in the Major Programme, geological and geophysical field schools are conducted by staff members in the two weeks following the completion of examinations in the spring. Students following the General Programme are not required to take these field schools, but if suitably qualified, may be granted permission to do so by the Department.

## SUMMER EMPLOYMENT

It is strongly recommended that prior to graduation at least one summer be spent in some phase of geological work. Although the Department of Geotechnical Science cannot guarantee summer employment, its students can normally expect to be engaged in suitable work, during the summer months, with government agencies or private companies.

### 201 Introduction to Geologic Mapping. Half Course.

(Not Given 1968-69)

Staff

Students are introduced to the use of transits, levels, compass, air photos, etc. Some elementary concepts of map making and descriptive Geometry are studied, and simple outcrop maps are constructed from notes obtained in the field.

Two week field school in May.

### 202 General Geology. Half Course.

D. J. McDougall

Elements of mineralogy, petrology, soil mechanics, structural geology, historical geology and geomorphology. Mineral, rock and soil specimens, topographic and geologic maps, and air photos are studied in the laboratory. Field trips are made to points of interest in and near Montreal.

Lectures: 3 hours per week for second term.

Lab.: 3 hours per week for second term.

### 203 Descriptive and Determinative Mineralogy. Half Course.

J. T. Jenkins

The lecture portion of the course is concerned with the classification and description of minerals in terms of their physical and chemical properties, compositions, geological environments, geographical occurrences, and uses. In the laboratory, simple physical and chemical tests are outlined, and then applied in identifying some 150 minerals.

Lectures: 1 hour per week for two terms.

Laboratory: 2 hours per week for two terms.

Text: Kraus, Hunt, and Ramsdell, *Mineralogy*, McGraw-Hill.

### 204 Historical Geology. Half Course.

K. K. Mukherji

A systematic survey of the sequential aspects of geology covering selected aspects of sedimentation, the development of life through the study of fossils, radioactive dating, etc.

Lectures: 2 hours per week for one term.

Laboratory: 3 hours per week for one term.

### 205 Morphological and Optical Crystallography. Full Course.

J. T. Jenkins

The first portion of this course is an introduction to crystallography, in which a systematic but brief description of the morphology of the forms of some of the mineralogically important crystal

classes is given. In the latter portion of the course, lectures deal with the theoretical background necessary for the use of the petrographic microscope, while oil immersion techniques for the determination of minerals in powder form are studied in the laboratory. If time permits, an introduction to the use of the four-axis Universal Stage is given.

Lectures: 2 hours per week for two terms.

Laboratory: 3 hours per week for two terms.

Texts: Kraus, Hunt, and Ramsdell, *Mineralogy*, McGraw-Hill.

Wahlstrom, *Optical Crystallography*, 3rd ed., Wiley. U.S.G.S. Bull. 848, *The Microscopic Determination of the Nonopaque Minerals*, 2nd. ed.

### 303 Applied Geophysics. Half Course.

K. K. Mukherji

An introduction to geophysical methods of prospecting and of investigating subsurface structures. The theories, uses and limitations of various magnetic, electrical, gravitational and seismic methods are explained and compared. The practical operation of the instruments is reviewed and actual field results are obtained and analysed.

Prerequisite: Geotechnical Science 202.

Lectures: 2 hours per week for one term.

Texts: Dobrin, *Introduction to Geophysical Prospecting*, McGraw-Hill.

### 304 Field Geophysics. Half Course.

Field work involving small scale seismic, magnetic, gravimetric and electrical surveys.

Prerequisite: Geotechnical Science 303.

Field Work: 2 weeks in May at the Loyola Geophysics Field School.

### 305 Structural Geology. Full Course.

E. H. Chown

Examination of geological structures and their origin. Methods of structural interpretation. Laboratory survey of graphical methods and exercises illustrating the analysis of practical problems.

Prerequisite: Geotechnical Science 202.

Lectures: 2 hours per week for two terms.

Laboratory: 3 hours per week for two terms.

Text: Hills, *Elements of Structural Geology*, Wiley.

### 307 Meteorology. Half Course.

M. MacFarlane

Elements of physical and dynamic Meteorology.

Applied Meteorology with special emphasis on air pollution and weather modification. Brief survey of the current status of palaeoclimatology.

Lectures: 2 hours per week for one term.

Lab.: 2 hours per week for one term.

Text: Petterssen, *Introduction to Meteorology*, 2nd edition, McGraw-Hill.



**310 Paleontology. Half Course.**

K. K. Mukherji

A systematic survey of invertebrate fossil forms and their distribution in space and time. The applications of paleontology to stratigraphy.

Lectures: 2 hours per week for one term.

Laboratory: 3 hours per week for one term.

**401 Geomorphology. Half Course.**

K. K. Mukherji

An advanced course in the study of landforms produced by the process of erosion and deposition by water, wind, glaciation and earth movements. The interrelationship of geologic processes, materials and structures, soil types, climatic conditions, etc., in the development of topographic forms is emphasized. Suites of maps and air photos plus one full day field trip are used to illustrate the lectures.

Lectures: 2 hours per week for one term.

Lab.: 2 hours per week for one term.

Text: Thornbury, *Principles of Geomorphology*. Wiley.

**402 Engineering Geology. Half Course.**

D. J. McDougall

(Not Given 1968-69)

Engineering properties of rocks. Ground water. The formation and mechanics of soils including structure, gradation, sedimentation, permeability, compressibility and shearing strength. Application of soil characteristics to typical geotechnical problems in bearing capacity, settlement and lateral earth pressure. Crustal movements and stability of slopes. Frost action in regolith. Laboratory work for experimental determination of above characteristics.

Lectures: 2 hours per week for one term.

Lab.: 2 hours per week for one term.

**403 Field Geology. Half Course.**

Surface and underground field mapping methods. Preparation of geological maps, sections and reports from field notes, diagrams, air photos, etc.

Prerequisite: Geotechnical Science 202, 305.

Field Work: 2 weeks in May at the Loyola Geology Field School.

**404 Optical Crystallography. Half Course.**

J. T. Jenkins

Lectures deal with the theoretical background necessary for the use of the petrographic microscope. In the laboratory, oil immersion techniques for the determination of isotropic and anisotropic minerals in powder form are studied. If time permits, an introduction to the use of the four-axis Universal Stage is given. (Second half of 205).

Prerequisite: Geotechnical Science 302.

Lectures: 2 hours per week for one term.

Laboratory: 3 hours per week for one term.

Texts: Wahlstrom, *Optical Crystallography*, 3rd. ed., Wiley. U.S.G.S. Bull. 848, *The Microscopic Determination of the Nonopaque Minerals*, 2nd. ed.

**405 Geology of Canada. Half Course.**

D. J. McDougall

Description of the geology of the major geomorphic subdivisions of Canada and the evaluation of the mineral resources of each. Reading assignments and colloquium are used to probe into specific problems.

Lectures: 2 hours per week for one term.

Colloquium: 1-3 hours per week for one term.

Text: *Geology and Economic Minerals of Canada* 4th ed. Econ. Geol. Series no. 1 of the Geological Survey of Canada.

**406 Igneous and Metamorphic Petrology. Full Course.**

J. T. Jenkins

The first part of the course deals with the chemistry, mineralogy, fabrics, classifications, and petrogenesis of the igneous rocks. This is followed by an examination of the scope of metamorphism and the relationships amongst metamorphism, magma, and orogeny. In the laboratory, a large number of igneous and metamorphic rocks are examined and described, employing megascopic and microscopic techniques.

Prerequisites: Geotechnical Science 203, 205 (or 302, 404).

Lectures: 2 hours per week for two terms.

Lab.: 3 hours per week for two terms.

Texts: Huang, *Petrology*. McGraw-Hill. Moorhouse, *The Study of Rocks in Thin Section*. Harper.

**407 Economic Mineral Deposits. Full Course.**

E. H. Chown

The origins, types of occurrence and classification of metallic and non-metallic mineral deposits of economic importance.

Prerequisite: Geotechnical Science 305, 406.

Lectures: 2 hours per week for two terms.

Lab.: 3 hours per week for two terms.

Text: Park and MacDiarmid, *Ore Deposits*, Freeman.

**408 Geotechnical Laboratory. Full Course.**

Staff

Major students in their final year are expected to show competence in isolating and examining a geological problem, using techniques available within the department, working in conjunction with an assigned faculty adviser. Course evaluation will be based on the student's performance in the investigation and on a short written report.

**409 Sedimentary Petrology. Half Course.**

E. H. Chown

The formation, occurrence and classification of sedimentary rocks. Laboratory includes a brief survey of techniques applied to unconsolidated sediments, but particular emphasis is placed on the microscopic examination of sedimentary rocks.

Prerequisite: Geotechnical Science 205 (or 404).

Lectures: 2 hours per week for one term.

Laboratory: 3 hours per week for one term.

Text: Pettijohn, *Sedimentary Rocks* — 2nd ed. Harper.

**410 Geochemistry. Full Course.**

D. J. McDougall

Geochemistry of the earth as a whole, the lithosphere, hydrosphere and atmosphere. The application of geochemistry to the search for ore-deposits. Selected aspects of the formation and properties of minerals in relation to the solid state characteristics of metals and artificial compounds. In the laboratory, the material discussed in the lectures is illustrated by using a variety of methods including geochemical calculations, trace element studies, metallurgical techniques, deformation, irradiation and luminescent phenomena.

Lectures: 2 hours per week for two terms.

Laboratory: 3 hours per week for two terms.

Text: Brian Mason, *Principles of Geochemistry*, 3rd ed., Wiley, and selected references.

**HISTORY**

F. G. W. Adams, Associate Professor (Chairman)  
 Rev. C. B. O'Keefe, S.J., Associate Professor  
 D. C. Savage, Associate Professor  
 R. E. Ruigh, Associate Professor  
 D. J. O'Brien, Associate Professor  
 R. T. Coolidge, Associate Professor  
 J. T. Copp, Assistant Professor  
 C. Schlacks, Jr., Assistant Professor (on leave)  
 J. Dotson, Assistant Professor  
 A. Grobovsky, Assistant Professor  
 W. Hubbard, Assistant Professor  
 Mrs. A. Lévesque-Stein, Assistant Professor  
 M. Ballantyne, Sessional Lecturer  
 Rev. J. Monet, S.J., Sessional Lecturer  
 Sean Kelly, Instructor

**Courses leading to an Honours B.A. in History**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French Two Electives	HISTORY (Three Electives from General Courses) Philosophy Theology	HONOURS HISTORY TUTORIAL HISTORY (Two Electives from Honours Courses) Philosophy One Elective	HONOURS HISTORY TUTORIAL HISTORY (Two Electives from Honours Courses) Theology One Elective

Of the four honours history courses in the third and fourth year, one may be in the same field as the tutorial course, two must be in other fields, and one may be in another department at the discretion of the student's tutorial advisor. Students in the honours history programme will be assigned a faculty advisor, who will normally be the director of their honours history tutorial and with whom they must consult concerning their selection of courses.

Students are required to take two theology courses. If this requirement is completed in the first and second years, students may substitute a second elective in fourth year.

There is a comprehensive oral examination for all honours history students towards the end of their fourth year.

**Courses leading to a B.A. with a Major in History**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French Two Electives	Classics 112 or 202 or 212 or 221 French HISTORY (Two Electives from General Courses) Philosophy Theology	English HISTORY (Two Electives from General or Honours Courses) Philosophy One Elective	HISTORY (Two Electives from General or Honours Courses) Theology Two Electives



**101 The Role of Ideas in the Modern World.**

F. G. W. Adams &amp; R. E. Ruigh

A discussion of the principal ideas which have influenced the course of modern history since 1500. Some of the main ideas treated will be the meaning of civilization, toleration, the social contract, the idea of progress, Utopianism, Cosmopolitanism and Nationalism, the nature of war, Romanticism, Imperialism, Socialism, Communism and Fascism.

Suggested reading: Crane Brinton, *Shaping of the Modern Mind* (Mentor).

Lectures and Seminars: 3 hours per week for two terms.

**General Courses**

The following courses are open to students of any faculty in the second, third or fourth year. History 101 is recommended as a prerequisite but is not required.

**201A History of Canada. Full Course.**

J. T. Copp

**201B History of Canada. Full Course.**

M. Ballantyne

Survey of Canadian History. The course is arranged topically and the student is expected to read intensively in certain areas. The term work requirements are three book reviews, seven to ten pages each. The course will centre on the historiography of French Canadian history, the ideological development of English Canada in the 19th century, analysis of economic growth in Canada, the impact of the First World War and the period of post-war unrest and will conclude with an examination of problems in post-1945 Canadian society. Students who are unfamiliar with Canadian history should read in advance either

J. M. Careless, *Canada: A Story of Challenge*, or

D. G. Creighton, *Dominion of the North*

Lectures: 3 hours per week for two terms.

**202 History of the United States. Full Course.**

D. J. O'Brien

Survey of American history from settlement to the mid-twentieth century. The focus of the course is political, but considerable attention is devoted to intellectual and social movements. The basic textbook is John A. Garraty, *The American Nation*, and additional paperback assignments include Edmond S. Morgan, *The Puritan Dilemma* and Richard Hofstadter, *The American Political Tradition*, which might be read in advance. Two brief essays are required.

Lectures: 3 hours per week for two terms.

**203 History of Modern Europe, 1760-1919. Full Course.**

W. Hubbard

Social, economic and political development of Europe from the ancien régime to the crisis of 1914-18. Emphasis is on changing patterns of social structure and evolution of political ideologies in response to the growth of modern industrial society. Two book-review essays required.

Recommended Reading: George Rudé, *Revolutionary Europe 1783-1815*, (Fontana)

E. Knapton-J. Derry, *Europe, 1815-1914* (Scribner's)

Lectures: 3 hours per week for two terms.

**204 The World Since 1914. Full Course.**

F. G. W. Adams

A discussion of the main trends of world history — political, diplomatic, socio-economic and cultural — since World War I. Special attention will be given to European developments. Two essays and book reports.

Recommended Reading: H. S. Hughes, *Contemporary Europe: A History* (Prentice-Hall).

Lectures: 3 hours per week for two terms.

**205 History of Medieval Europe. Full Course.**

R. T. Coolidge

A study of Western Europe (France, Germany and Italy with occasional reference to neighboring areas) during the period 300 to 1300 A.D. The purpose of the course will be to discover the positive meaning of the term "medieval" by an examination of the political and cultural interaction of the Greco-Roman, Judeo-Christian and Germanic traditions, as revealed in primary sources. Readings will be assigned from a number of recent collections of translated contemporary source material which will form the basis of class discussions.

Required Reading: C. Warren Hollister, *Medieval Europe*.

Lectures: 3 hours per week for two terms.

**206 Renaissance and Reformation. Full Course.**

J. Dotson

History of Europe in the Age of Transition with special emphasis on Italy as a leader in social and cultural trends.

Recommended Reading: W. K. Ferguson, *Europe in Transition*; OR Edward P. Cheyney, *The Dawn of a New Era*; Myron P. Gilmore, *The World of Humanism*.

**207 History of England. Full Course.**

R. E. Ruigh

A general survey of English history from the Anglo-Saxons to the present.

Recommended Reading: The Pelican History of England, vols. 5-9 (Bindoff, Ashley, Plumb, Thomson, Thomson) (Penguin Books).

Lectures: 3 hours per week for two terms.

**208 History of Russia. Full Course.**

A. Grobovsky

Survey of the history of Russia from the origins to the present.

Required Reading: N. V. Riasanovsky, *A History of Russia* (Oxford U.P.). Selections from various source collections, e.g., Dmytryshyn, ed., *Medieval Russia* and Walsh, ed., *Readings in Russian History*.

Lectures: 3 hours per week for two terms.

**209 Introduction to the History of Africa. Full Course.**

D. C. Savage

Africa before the Europeans, Islamic and European Conquests, slavery, resistance movements and the rise of nationalism.

Text: R. Rotberg, *Political History of Tropical Africa*

Lectures: 3 hours per week for two terms.

**212 English Constitutional History. Full Course.** R. E. Ruigh

Lectures: 3 hours per week for two terms. Not offered 1968-69.

**213 Modern Catholic Social and Political Thought. Full Course.**

D. J. O'Brien

Lectures: 3 hours per week for two terms. Not offered 1968-69.

**214 History of Modern Germany. Full Course.** W. Hubbard

Lectures: 3 hours per week for two terms. Not offered 1968-69.

**216 History of Ancient Greece and Rome. Full Course.**

D. Brown

Listed as Classics 330 and may be taken either as a history or a classics course.

Lectures: 3 hours per week for two terms.

**217 History of China. Full Course.**

A. Grobovsky

A survey of the history of China from ancient times to the present. This course will deal principally with the social and intellectual history of China.

Text: Edwin O. Reischauer and John K. Fairbank, *East Asia: The Great Tradition*

W. T. De Bary, Chan Wing-tsit and B. Watson, *Sources of Chinese Tradition*.

Lectures: 3 hours per week for two terms.

**218 Problems in Canadian History. Full Course.**

(1840 to the present)

J. Monet, S. J. &amp; J. T. Copp

An advanced course for majors and general students with a special interest in Canadian history. Students must have taken History 201 or its equivalent.

Lectures and seminars: 3 hours per week for two terms.

Summer reading list available.

**219 Histoire du Québec Contemporain. Cours complet.**

A. Lévesque-Stein

Histoire politique, économique, sociale et intellectuelle du Québec depuis la Confédération. Un travail de recherche sera exigé à la fin du second semestre.

**220 History of Modern Italy. Full Course.**

J. Dotson

Social and political development of the first 'emergent nation' with special emphasis on contemporary Italy.

Recommended Reading: René Albrecht-Carrié, *Italy from Napoleon to Mussolini*; William A. Whyte, *The Evolution of Modern Italy*.

Lectures: 3 hours per week for two terms.

**Honours Courses**

The following courses are open to honours students in all departments in the third and fourth years. Students in the third and fourth year majoring in history or in other departments may take these courses with the permission of the lecturer. Normally majors will be allowed to take these courses if they have successfully completed the prerequisite general course.

**300 Britain and Ireland in the Victorian Age.**

D. C. Savage &amp; S. Kelly

The intellectual, social, economic and political results of the rise of industrial society in Britain and Ireland; emphasis on the ideas and culture of the Victorians.

Texts: A Briggs, *The Age of Improvement* (Harper TB); Kitson Clark, *An Expanding Society*; D. Thomson, *England in the 19th Century* (Penguin).

Seminar: 2 hours per week for two terms.

**301 History of Modern Canada, 1840 to the Present.**

J. Monet, S. J. &amp; J. T. Copp

An intensive study of selected themes in modern Canadian history. Emphasis upon historiography, social and intellectual history and the development of parliamentary institutions.

A summer reading list is available.

A research paper is required in both terms.

Seminar: 2 hours per week for two terms.

**302 History of U.S. Foreign Policy.**

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**303 Church and State in the Middle Ages.** R. T. Coolidge

A study of selected problems, concepts and situations illustrating the harmony and tension which characterized the relation between the Catholic Church and the various secular jurisdictions of the Christian Commonwealth, in theory and in practice, from the reign of the Emperor Constantine through the reign of Pope Boniface VIII. Specific topics will be chosen to conform as closely as possible to the interests of those enrolled. At the weekly seminars, discussions will be held on papers presented, on the progress of researches, or on specially assigned topics. Students will be required to be able to read works in French (or if they prefer, in German or Latin). As preparation, students are advised to read Brian Tierney, *The Crisis of Church and State, 1050-1300*, which contains most of the more important translated source materials.

Seminar: 2 hours per week for two terms.



**304 Nationalism in Africa.**

D. C. Savage

(Not offered in 1968-69)

Interested students should take one of the following courses in the Political Science Department: The Politics of Race, the Stages of Political Development, African Government and Politics.  
Seminar: 2 hours per week for two terms.

**305 The Era of the Governing Class.**

R. E. Ruigh

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**306 Intellectual History of Russia.**

C. Schlacks, Jr.

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**307 The French Revolution and Napoleon.**

F. G. W. Adams

A study of the course of French history from the 'pre-Revolution' of 1787-1789 to the collapse of Napoleon. Some time will be devoted to an examination of the revolutionary and Napoleonic traditions since 1815.

Suggested Reading: Georges Lefebvre, *The Coming of the French Revolution* (Vintage); Jean Ratinaud, *Robespierre* (Editions du Seuil); 1789: *Les Français ont la parole* (Collections Archives, Juillard).

Seminar: 2 hours per week for two terms.

**308 Man in Contemporary Society.**

Staff

A reading and discussion course on the key intellectual, social and political trends of the 20th Century. Emphasis is placed on an inter-disciplinary approach to such topics as political elites, nationalism in the Third World, etc.

Further information may be obtained from the department Chairman.  
Seminar: 2 hours per week for two terms.

**309 Philosophy of History.**

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**310 The Age of the Enlightenment.**

F. G. W. Adams

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**311 Tudor-Stuart England.**

R. E. Ruigh

Lectures and readings, concentrating on political and constitutional developments. Students will complete a research paper in second semester.

Suggested Reading: S.T. Bindoff, *Tudor England*; Maurice Ashley, *England in the Seventeenth Century* (Pelican History of England).  
Seminar: 2 hours per week for two terms.

**312 American Intellectual History.**

D. J. O'Brien

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**313 The Russian Revolutions of 1905 and 1917.**

C. Schlacks, Jr.

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**314 Post-Confederation Québec.**

A. Lévesque-Stein

A reading knowledge of French is essential. The first semester involves intensive reading and oral reports; in the second semester the student will prepare a research paper to be discussed in class.  
Required Reading: Mason Wade, *The French Canadians* (Papermac-Macmillan).

Seminar: 2 hours per week for two terms.

**315 Problems in Central European History since 1815**

W. Hubbard

Intensive readings in selected areas of domestic affairs in German Central Europe; special emphasis will be placed on the interaction between socio-economic developments and political ideologies. Each student will write a paper for class discussion in the second semester in addition to occasional oral reports. Those interested students who have not taken the survey course should read either Koppel S. Pinson, *Modern Germany* or E. J. Passant, *A Short History of Germany, 1815-1945*.

Seminar: 2 hours per week for two terms.

**316 Selected Problems in the Italian Renaissance.**

J. Dotson

Emphasis on social and economic developments. Topics of investigation may vary according to the preparation and interests of the students.

Seminar: 2 hours per week for two terms.

**317 World War I: War and Revolution in European Society.**

W. Hubbard

Investigation of World War I and its impact on European society using the analysis of Elie Halévy ("The World Crisis of 1914-1918: An Interpretation" in *The Era of Tyrannies*, Anchor PB) as a starting point. Each Student will write a paper for class discussion in the second semester in addition to occasional oral reports.

Suggested advance reading: J. J. Roth, ed., *World War I: A Turning Point in Modern History* (Knopf); L. Dehio, *Germany and World Politics in the Twentieth Century* (Norton); H. Holborn, *The Political Collapse of Europe* (Knopf); C. Fall, *The Great War* (Capricorn).

Seminar: 2 hours per week for two terms.

**318 American Liberalism in the Twentieth Century.**

D. J. O'Brien

A seminar dealing with social and political reforms in the twentieth century: Progressivism, the New Deal, the Fair Deal and the domestic programs of Presidents Kennedy and Johnson. The relationship between domestic reform and foreign policy will also be examined.

Preliminary required reading: Richard Hofstadter, *The Age of Reform*; Lewis Hartz, *The Liberal Tradition in America*; W. A. Williams, *The Tragedy of American Diplomacy*.

Seminar: 2 hours per week for two terms.

**319 Education in the Middle Ages.**

R. T. Coolidge

(Not offered in 1968-69)

Seminar: 2 hours per week for two terms.

**320 Studies in Pre-Petrine Russia, 900-1700.** A. Grobovsky

Readings and discussions. Main emphasis is laid on the emergence and growth of Muscovy.

Required Readings: N. V. Riasanovsky, *A History of Russia*; B. Dmtryshyn, ed., *Medieval Russia*; T. Riha, ed., *Readings in Russian Civilization*, vol. I; S. A. Zenkovsky, ed., *Medieval Russia's Epics, Chronicles and Tales*.

Seminar: 2 hours per week for two terms.

**321 Catholicism in North American Society.** D. J. O'Brien

This course will be a seminar bringing together faculty and students from several departments to examine a number of problems in North American Catholicism from the perspectives of history, sociology, philosophy and theology. Detailed information may be obtained from the instructor, whose permission is required for enrollment in the course.

Seminar: 2 hours per week for two terms.

**322 Rome: Republic and Empire. Half Course.** D. Brown

Special problems in Roman history from the tribunate of Tiberius Gracchus to the death of Nero (133 B.C.-68 A.D.).

Seminar: 3 hours per week for one term.

**Honours History Tutorial**

The history tutorial programme is open to honours students in history only. All honours students in history must select an area of concentration from the list below at the end of second year. At the end of third year they must choose, in consultation with their tutorial directors, a research topic or other specialized work for intensive analysis during the fourth year. The history department will also accommodate those honours history students who desire to pursue an interdisciplinary or thematic interest in their third and fourth year. The tutorial course will be the equivalent of two full courses, and examinations will be given at the end of the third and fourth years. The tutorial directors may, at their discretion, assign summer reading as part of the course work.

1. North American History
2. British History
3. European History 400-1600
4. European History 1600 to the present
5. Africa

**LINGUISTICS and MODERN LANGUAGES**

N.-P. Yalamow, Professor (Chairman)

F. Antolin, Assistant Professor

U. Sautter, Assistant Professor

H. Famira-Parcaetich, Assistant Professor

E. Ottolenghi, Assistant Professor

A. Costanzo, Assistant Professor

M. Trsic, Sessional Lecturer

P. Apiou, Secretary

R. Dolinsky, Supervisor Language Laboratory

G. Robitaille, Technician Language Laboratory

**PREAMBLE**

The Department of LINGUISTICS and MODERN LANGUAGES offers principally instruction in Spanish, German and Italian. However it is beginning this year courses in Russian and Linguistics. Presently students may take a Major in either of these five subjects. Non-majoring students in Linguistics or Modern Languages may register for courses in Linguistics, Russian, Italian, Spanish and/or German when electives are possible. However, no fourth-year student may select a first-year course in any of these subjects. If a third-year student registers in one of Linguistics-100, Russian-100, Spanish-100, Italian-100 or German-100, he must assure himself about taking Linguistics-200, Russian-200, Spanish-200, Italian-200 or German-200 in his fourth year.

The Department offers also a Major, or more rightly so a double Major in MODERN LANGUAGES. A sound knowledge of both English and French is a prerequisite. After Departmental approval, a student will choose to major in two of the following four languages: Russian, Spanish, German and Italian. The chosen languages will be known hereunder as Modern Language (1) and Modern Language (2): see the chart leading to a B.A. with double Majors on a subsequent page for the four-year selection of courses.

For this year, two introductory courses in Linguistics will be offered to Arts students. Students majoring and/or honouring in French or English are strongly recommended to take these courses.

**LINGUISTICS****LIN-101 General Linguistics. Introduction.**

N.-P. Yalamow

Language phenomenon and linguistic documentation.

Languages of the world: the Indo-European complex.

Diachrony and Synchrony: basic concepts and methods.

The theory of language: analysis of speech units and language evolution.

A lecture and laboratory course.

3 hours per week for one term.



**LIN-111 General Phonetics and Phonology.** N.-P. Yalamow

Speech as a system of oral communication. Nature and analysis of speech sounds: physiological and acoustical aspects. Articulation and intonation. Phenomena of phonetical combination: phonemics. Phonological schools. The I.P.A.: transcription.  
A lecture and laboratory course.  
3 hours per week for one term.

**Courses leading to a B.A. with a Major in SPANISH**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102, 112 or 121 English 101 French 120 124, 128 or 130 SPANISH 100 One Elective	Classics 112, 202, 212 or 221 English French 220, 224, 228, 230-240, 250 or 260 Philosophy SPANISH 200 Theology or Elective*	Language Elective Philosophy SPANISH (TWO Electives from 300's & 400's) Theology or Elective*	Language Elective SPANISH:- (THREE Electives from 300's & 400's) Theology or Elective*

\*Two Theology courses must be taken over the four years; if Theology has been chosen as a first year elective, another Theology must be taken at this time or later when possible.

**Spanish****100 Functional Spanish.**

M. Trsic

Essentials of pronunciation and grammar; composition, graded reading of Spanish texts, introducing the student to the Spanish and Spanish American civilizations.  
For students with no previous knowledge of Spanish.  
Lectures: 3 hours per week for two terms.  
Language Laboratory: one hour per week for two terms.

**200 Intermediate Spanish.**

F. Antolin

Grammar review; practice in conversation and composition. Introduction to Hispanic literature and culture.  
Lectures: 3 hours per week for two terms.  
Language Laboratory: one hour per week for two terms.

**300 The Spanish Civilization.**F. Antolin  
E. Ottolenghi

The Spanish Civilization in the old and in the new continents.  
Lectures: 3 hours per week for two terms.  
(First semester: *Spain*. Second semester: *Latin America*)

**320 Spanish Literature.**

E. Ottolenghi

A chronological and comparative consideration of Spanish writers from the "Poema de Mio Cid" through the 19th century.  
Lectures: 3 hours per week for two terms.

**330 Spanish Literature.**E. Ottolenghi  
F. Antolin

Contemporary literature. From Modernism to the present day.  
Advanced composition and conversation.  
Lectures: 3 hours per week for two terms.

**370 Analysis of texts and advance stylistics.**

F. Antolin

With emphasis in the different styles through selected master pieces of the Spanish literature.  
Practical exercises and advanced composition.  
Lectures: 3 hours per week for two terms.

**400 Old Spanish Language and Literature.**

(Not offered in 1968-69)

Readings in medieval texts.  
Lectures: 3 hours per week for two terms.

**420 Twentieth-Century Literature in Spain.**

(Not offered in 1968-69)

From the Generation of '98 to the present day.  
Lectures: 3 hours per week for two terms.

**430 Literature of the 18th and 19th Century.**

(Not offered in 1968-69)

**440 Cervantes.**

(Not offered in 1968-69)

**450 Latin American Literature.**

E. Ottolenghi

From the colonization period to the present day, with particular emphasis on 20th century authors.

**Courses leading to a B.A. with a Major in GERMAN**

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102, 111, 112 or 121 English 101 French 120, 124, 128, or 130 GERMAN 100 One Elective	Classics 112, 202, 212 or 221 English French 220, 224, 228, 230-240, 250 or 260 GERMAN 200 Philosophy Theology or Elective*	GERMAN 300, or History 214 GERMAN (Two Electives from 300's or 400's) Philosophy Theology or Elective*	GERMAN: (Three Electives from 300's or 400's) Language (Elective) Theology or Elective*

\*Two Theology courses must be taken over the four years; if Theology has been chosen as a First Year Elective, another Theology course may be taken at this time or later when possible; if Theology is not an elective at this time, students would do well to take one in line with their field of concentration.

## German

### 100 Functional German. H. Famira & Staff

An elementary course for students with little or no knowledge of German.

Lectures: 3 hours per week for two terms.

Laboratory: 1 hour per week for two terms.

### 200 Intermediate German. U. Sautter & Staff

Practice in grammar and conversation; composition; readings from modern German authors.

Lectures: 3 hours per week for two terms.

Laboratory: 1 hour per week for two terms.

### 300 German History and Civilization.

(Not offered in 1968-69)

### 320 Survey of German Literature. U. Sautter

A chronological consideration of the main currents of German literature from the XVIth to the XXth centuries.

Selected readings, composition and conversation.

Lectures: 3 hours per week for two terms.

Texts: Goethe, *Die Leiden des jungen Werthers*; Eichendorff, *Aus dem Leben eines Taugenichts*; Keller, *Kleidern machen Leute*; Kafka, *Die Verwandlung*; Kirsch/Ross, *Deutsche Dichter*; Friedrich, *An outline History of German Literature*.

### 330 Contemporary Literature. H. Famira

Consideration of German XXth century literature.

Selected readings, composition and conversation.

Lectures: 3 hours per week for two terms.

Texts: Werfel, *Jacobowski und der Oberst*; Dürrenmatt, *Der Besuch der alten Dame*; Frisch, *Biographie*; Brecht, *Kalendergeschichten*; Kafka, *Short Stories*; Zweig, *Schachnovelle*; Kirsch/Ross, *Deutsche Dichter*; Hatfield, *Modern German Literature*.

### 370 Advanced Stylistics. U. Sautter

Introduction to comparative stylistics. Vocabulary expansion by word formation and derivation, by synonymy and idiomatic structures. Selected grammar problems. Analysis of texts.

Lectures: 3 hours per week for two terms.

Language laboratory: on arrangement.

Texts: Shaw/Winter/Shaw, *German for Intermediates*; Oehler, *Grundwortschatz Deutsch*; Coogan/Kurz, *Auswahl deutscher Essays*.

### 400 Introduction to Middle High German.

(Not offered in 1968-69)

### 420 Literature of the Romantic Period

(Not offered in 1968-69)

### 430 From Realism to Expressionism.

(Not offered in 1968-69)

### 450 Goethe.

(Not offered in 1968-69)

### 470 From Enlightenment to Classicism.

(Not offered in 1968-69)

## ITALIAN

### 100 Functional Italian. Staff

An elementary course for students with little or no knowledge of Italian.

A lecture and laboratory course.

3 hours per week for two terms.

### 200 Intermediate Italian. A. Costanzo

Practice in grammar and conversation; composition, readings from modern Italian authors.

A lecture and practice course.

3 hours per week for two terms.

### 300 Italian Literature and Language.

Survey of Italian Literature and its expression of Italian civilization.

Advanced composition and conversation.

Lectures: 3 hours per week for two terms.

### 320 Literature of the Middle Ages. A. Costanzo

A study of the major Italian writers and lyric poets of the Middle Ages.

Principal works:

Dante Alighieri. *La divina commedia*

Petrarca Francesco. *Le Rime*

Boccaccio Giovanni. *Decameron*

Momigliano Attilio. *Storia della letteratura italiana, Penguin Book of Italian Verse.*

Lectures: 3 hours per week for two terms.

### 330 Italian Literature.

Realism and Neo-Realism in the contemporary novel.

Lectures and/or seminars: 3 hours per week for two terms.



### 340 Literature of the Nineteenth Century. A. Costanzo

A study of the major writers with emphasis given to Foscolo, Manzoni, Leopardi and Carducci.

Principal works:

Ugo Foscolo. *Ultime lettere di Jacopo Ortis e Poesia*.

Giacomo Leopardi. *Canti, Operette morali, Zibaldone*.

Alessandro Manzoni. *I promessi sposi*.

Giovanni Verga. *I Malavoglia*.

Augusto Vicinelli. *Le tre corone; Carducci, Pascoli D'Annunzio*.

Lectures: 3 hours per week for two terms.

## RUSSIAN

### 100 Functional Russian. N.-P. Yalamow

An introductory course for students with little or no knowledge of Russian. Essentials of pronunciation and grammar; composition and graded readings of Russian texts.

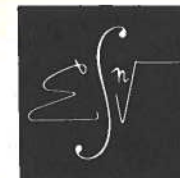
A language and laboratory course.

Lectures: 3 hours per week for two terms.

#### Courses leading to a B.A. with double Majors in Modern Languages

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102, 111, 112 or 121 English 101 French 120, 124, 128 or 130 MODERN LANG. (1) (One Elective from: German 100, Italian 100, or Spanish 100) One Elective	English French 224, 228, 230-240, 250 or 260 History MODERN LANG. (1) (One Elective from: German 200, Italian 200, or Spanish 200) MODERN LANG. (2) (One Elective from: German 200, Italian 200, or Spanish 200) Philosophy	MODERN LANG. (1) (One Elective from: the 300's in German, Italian, or Spanish) MODERN LANG. (2) (Two Electives from: the 300's in German, Italian, or Spanish) Philosophy One Elective from Political Science or Sociology	French MODERN LANG. (1) (One Elective from: the 300's or 400's in either German, Italian, or Spanish) MODERN LANG. (2) (One Elective from: the 300's or 400's in either German, Italian, or Spanish) Theology One Elective in one of the two Major MODERN LANGUAGES

## MATHEMATICS



A. J. Prillo, Associate Professor (Chairman)

Rev. E. O'Connor, S.J., Professor

I. Benjamin, Associate Professor

I. Shtern, Associate Professor

M. Faierman, Assistant Professor

K. N. Majumdar, Assistant Professor

R. C. Moore, Assistant Professor and Department Secretary

J. B. Sabat, Assistant Professor

J. Soric, Assistant Professor

T. Srivastava, Assistant Professor

G. Bashconji, Lecturer

H. Fainsilber, Lecturer

N. Govil, Lecturer

H. Greenspan, Lecturer

C. G. Hewson, Lecturer

H. Kim, Lecturer

Rev. J. G. McDonough, S.J., Sessional Lecturer

E. Storr, Sessional Lecturer

#### Courses leading to an Honours B.Sc. in Mathematics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101, 102 French MATHEMATICS 120 MATHEMATICS 121 MATHEMATICS 131 Physics 101 Theology	MATHEMATICS 220 MATHEMATICS 231 MATHEMATICS 201 MATHEMATICS 121 or 240 MATHEMATICS 234 Philosophy Physics 205	MATHEMATICS 320 MATHEMATICS 321 MATHEMATICS 330 Philosophy Physics 311 Theology	English MATHEMATICS 421 MATHEMATICS 430 MATHEMATICS 490 One or two from: MATHEMATICS 401 MATHEMATICS 440 MATHEMATICS 460 MATHEMATICS 470-471 MATHEMATICS 480 Philosophy or Theology

#### Courses leading to a B.Sc. with a Major in Mathematics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101, 102 French MATHEMATICS 120 MATHEMATICS 131 Physics 101 Theology One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 MATHS. 121	MATHEMATICS 221 MATHEMATICS 232 One from: MATHEMATICS 201 MATHEMATICS 240 Philosophy Physics 205 Theology	MATHEMATICS 234 MATHEMATICS 331 MATHEMATICS 320 Philosophy Physics 311	English MATHEMATICS 321 MATHEMATICS 330 MATHEMATICS 490 One from: MATHEMATICS 401 MATHEMATICS 440 MATHEMATICS 460 MATHEMATICS 470-471 MATHEMATICS 480 Philosophy or Theology

### Courses leading to a General B.Sc. in Mathematics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101, 102 MATHEMATICS 120 MATHEMATICS 131 French Physics 101 Theology One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 MATHS. 121	MATHEMATICS 221 MATHEMATICS 232 Philosophy Theology One Elective	English MATHEMATICS 201 MATHEMATICS 234 MATHEMATICS 240 Philosophy	MATHEMATICS 320 MATHEMATICS 331 Philosophy or Theology One Elective

NOTE: Those students who wish to proceed to an *Honours B.A. in Mathematics* or a *B.A. with a Major in Mathematics* should consult the chairman of the Department.

### 101 Algebra and Trigonometry. Full Course.

C. G. Hewson and Staff

Algebra and Graphs: linear and quadratic functions and their graphs; ratio and proportion; the progressions; permutations and combinations; binomial theorem; mathematics of investment.

Plane Trigonometry and Analytic Geometry; the trigonometric functions and solution of right-angled triangles, measurements of angles; identical relationships among the functions; trigonometric equations; graphs of the trigonometric functions; solution of triangles; logarithms; discussion of straight line and circle.

Lectures: 3 hours per week for two terms.

Text: *Elementary Mathematical Analysis* by H. Tate (Pitman)

### 110 Analytic Geometry and Calculus. Full Course.

A. J. Prillo

Rectangular co-ordinate system, graphs, equations of straight line, circle, conic sections, Limits, continuous functions. The derivative, differentiation of Algebraic functions; applications of the derivative. Antiderivatives. The definite integral. Applications of integration. Transformation of Axes. Families of curves. Differentiation and integration of trigonometric, logarithmic and exponential functions. Introduction to methods of integration.

Lectures: 3 hours per week for two terms (Engineering).

Text: *Analytic Geometry and the Calculus* by Goodman (Macmillan).

### 120 Algebra and Trigonometry. Half Course.

G. Bashconji and Staff

Numbers, Sets and Functions. Equations, Inequalities, Logarithms. Trigonometric Functions. Mathematical Induction, Binomial Theorem and Sequences, Systems of Linear Relations. Trigonometric Analysis. Theory of Equations. The complex number system. Matrices and Determinants.

Lectures: 3 hours per week in first term.

Text: *Algebra & Trigonometry* (Revised Edition) by E. A. Cameron (Holt, Rinehart & Winston, 1965)

### 121 Solid Vector Geometry. Half Course.

H. Greenspan and Staff

Introduction to three-dimensional Geometry. Introduction to Vector Spaces; Addition, subtraction and multiplication of vectors, matrices, Linear dependence and independence of vectors; simple applications. Length and inner product, applications of scalar product to Geometry. Vector product. Triple product. Surfaces. Other coordinate systems in 3-space: polar, cylindrical and spherical coordinates. Linear transformations.

Lectures: 3 hours per week in second term.

Text: *Algebra & Vector Geometry* by R. G. Stanton & K. D. Fryer (Holt, Rinehart & Winston, 1965)

### 131 Analytic Geometry and Calculus. Full Course.

G. Bashconji and Staff

Algebraic Equations. Rectangular co-ordinate system. Graphs. Solution of equations by graphs. Equations of straight line, circle, and conics. Inequalities. Mathematical induction. Limits. Continuous functions. The derivative. Differentiation of algebraic functions. Applications of the derivative. Antiderivatives. The definite integral. Applications of integration. Transformation of axes. Families of curves. Trigonometric, logarithmic, and exponential functions.

Lectures: 3 hours per week for two terms.

Text: *Analytic Geometry and Calculus* by Goodman (Macmillan).

### 201 Probability and Statistics. Full Course.

R. C. Moore

Frequency Distributions, Probability, Binomial, Normal and Poisson Laws, Sampling Theory, Curve Fitting. Distribution of Chi-Squares, F and T. Hypothesis Testing. Quality control. Regression Theory. Analysis of Variance. Introduction to Experimental Design.

Lectures: 3 hours per week for two terms.

Text: To be announced.

### 202 Elementary Statistics. Half Course.

R. C. Moore and Staff

Empirical frequency. Distributions and Descriptive Measures; Elementary Probability; Populations, samples and Theoretical Distributions; Sampling Distributions; Estimation of Confidence Intervals; Tests of Hypotheses; two sample techniques; tests for goodness or fit; Regression and Correlation; Analysis of Variance. Lectures: 3 hours per week for one term (for Non-Math. Students).

Text: *Modern Elementary Statistics* (3rd edition) by Freund.

### 203 Theory of Interest. Half Course.

R. C. Moore and Staff

Simple and compound interest; discounts, annuities certain; sinking funds; bonds; elementary interpolation.

Lectures: 3 hours per week for one term. (Commerce).

Text: Simpson, Pirenian and Crenshaw *Mathematics of Finance* (Prentice-Hall).

**205 Calculus. Full Course.**

A. J. Prillo

A first course aiming to cover as completely as possible the ordinary techniques and applications of calculus.

Limits of functions, differentiation and integration of polynomials with applications; second derivative and differentiation of algebraic, exponential and logarithmic functions; curvature; definite integral. Differentiation and integration of trigonometric functions; methods of integration; improper integrals; applications of the definite integrals; approximate integrals; partial derivatives, multiple integrals; expansion of functions.

Lectures: 3 hours per week for two terms.

Text: *Middlemiss, Differential and Integral Calculus.*

**210 Analytic Geometry and Calculus. Full Course.**

M. Faierman

A continuation of Math. 110.

Methods of integration. Indeterminate forms and improper integrals. Two and three dimensional vector geometry. Polar, cylindrical and spherical co-ordinates. Functions of more than one variable. Partial differentiation. Multiple integrals. Introduction to elementary differential equations.

Lectures: 3 hours per week for two terms. (Engineering).

Text: *Analytic Geometry and the Calculus* by Goodman (Mac-Millan).

**212 Algebra. Full Course.**

H. Fainsilber

Inequalities, complex numbers, theory of equations, Determinants and matrices; convergence and divergence of series, Taylor and MacLaurin series; Introduction to statistics.

Lectures: 2 hours per week for two terms. (Engineering).

Text: To be announced.

**220 Algebra. Full Course.**

Rev. E. O'Connor, S.J.

The first part of this course aims at an accurate working familiarity with the following topics: real numbers; decimal approximations; abbreviated methods of computations; inequalities; complex numbers; formal and functional properties of polynomials; polynomial equations; rational functions.

The second part embraces the following topics: solution of cubic and quartic equations by radicals; systems of linear equations; determinants; matrices; linear transformations (projecture and complex); symmetric functions of the roots of an equation; approximation of irrational numbers by rationals; impossibility of angle trisection by ruler and compass; sequences; limits; summation of series.

Lectures: 3 hours per week for two terms. (Honours Math. only).

Reference: Courant and Robbins. *What is Mathematics?* (Oxford)

**221 Algebra. Full Course.**

N. Govil

The integers; the rational and real number systems; infinite sequences and series; the Cauchy convergence criteria; inequalities, introduction to complex numbers; some elementary functions of complex variable; exponential, sine and cosine functions, Euler identity, extraction of roots, logarithmic function; polynomials and polynomial equations and their graphs; fundamental theorem of algebra; roots of polynomial equations; determinants and their applications; matrices; multiplication of matrices, inverse of a matrix, matrix solution of system of equations; vector analysis.

Lectures: 3 hours per week for two terms.

(Text: *Algebra & Vector Geometry* by R. G. Stanton & K. D. Fryer. (Holt, Rinehart & Winston, 1965))

**231 Advanced Calculus. Full Course.**

T. Srivastava

Methods of Integration. Indeterminate forms and Improper Integrals. Infinite Series. Taylor's and McLaurin's Series. Fourier Series. Functions of more than one Variable. Continuity. Partial Differentiation. Vector Calculus. Multiple Integrals. Line and Surface Integrals.

Introduction to Complex Variables.

Lectures: 3 hours per week for two terms.

Text: *Advanced Calculus* by A. E. Taylor (Blaisdell)

**232 Analytical Geometry and Calculus. Full Course.**

I. Benjamin and Staff

A continuation of Math. 131.

Methods of Integration. Indeterminate forms and Improper Integrals. 2 and 3-dimensional Vector Geometry. Polar Coordinates. Functions of more than one variable. Partial Differentiation. Multiple Integrals.

Lectures: 3 hours per week for two terms.

Text: *Analytic Geometry and the Calculus* by Goodman (Mac-Millan).

**233 Algebra and Calculus. Full Course.**

I. Benjamin

An introductory course aiming to cover the ordinary techniques and applications of calculus. The course will include topics in Algebra and elementary differential equations.

Lectures: 3 hours per week for two terms.

Text: To be announced.

**234 Differential Equations. Full Course.**

M. Faierman and Staff

Equations of first order. Equations of first order and degree higher than the first. Singular solutions. Linear equations with constant coefficients. Variation of parameters. System of linear equations. Solution by Laplace transform. Simple equations with variable coefficients. Fourier series; series solution.

Boundary value problems. Sturm Liouville problems. Existence and uniqueness theorems. Lagrange's partial differential equation. Linear partial differential equation with constant coefficients. Separation of variables. Applications.

Lectures: 3 hours per week for two terms.

Text: *Differential Equations* by Ross (Blaisdell)



**240 Numerical Methods. Full Course.** J. B. Sabat

A first course in numerical methods with aid of electronic desk calculators and IBM 1620.

Elementary Finite Differences. Solution of equations. Computation with series and integrals. Linear systems and matrix methods. Difference equations and relaxation methods. Numerical solutions of differential equations. Principles of automatic computation; methods of Computer programming.

Lectures: 3 hours per week for two terms.

Text: *Numerical Methods for Science & Engineering* by R. G. Stanton. (Prentice-Hall)

**312 Differential Equations. Full Course.** J. B. Sabat

First-order ordinary differential equations. Linear equations with constant coefficients. Laplace transforms. Solutions in series. Systems of linear equations. Boundary value problems. Numerical methods. Introduction to partial differential equations. Introduction to integral equations.

Lectures: 2 hours per week for two terms (Engineering)

Text: *Differential Equations with Applications* by Ritzgers & Rose (McGraw-Hill, 1968).

**313 Engineering Mathematics. Full Course.** T. Srivastava

Vector Analysis. Introduction to partial differential equations. Legendre functions. Bessel functions. Fourier series. Complex Analysis up to conformal mapping.

Lectures: 2 hours per week for two terms.

Text: *Advanced Engineering Mathematics* by Kreyszig. (Wiley)

**320 Linear Algebra. Full Course.** J. Soric

The following topics are covered: linear equations, vector spaces, linear transformations, polynomials, determinants, invariant direct — sum decompositions, the rational and Jordan forms, inner product spaces, bilinear forms.

Lectures: 3 hours per week for two terms.

Text: *Linear Algebra* by Hoffman & Kunze (Prentice-Hall)

**321 Modern Algebra. Full Course.** K. N. Majumdar

This course is an introduction to modern abstract algebra. It includes group theory, rings and their properties, division rings, quaternions, fields, mappings of algebraic systems, rudiments of Galois theory of equations and Galois fields.

Lectures: 3 hours per week for two terms.

References: *A survey of Modern Algebra* by Birkhoff and MacLane; *Topics in Algebra* by I. N. Herstein.

**330 Real Analysis. Full Course.** K. N. Majumdar

This course is an introduction to rigorous mathematical analysis. It thoroughly covers elementary set theory, theory of sequences, series, tests of convergence, inequalities, real variable theory and Riemann's integration theory.

Lectures: 3 hours per week for two terms.

References: *Theory and application of infinite series* by K. Knopp; (Dover) *Mathematical Analysis* by Tom M. Apostol; *Mathematical Analysis* by T. M. Flett (McGraw-Hill)

**331 Advanced Calculus. Full Course.** N. Govil

Limits, continuity, differentiability of functions of two variables; implicit and inverse function theorems; multiple and line integrals; integrals as functions of parameters; improper integrals; complex analysis.

Lectures: 3 hours per week for two terms.

Text: *Advanced Calculus* by Angus E. Taylor (Blaisdell)

**332 Advanced Calculus. Full Course.** I. Benjamin

Limits and continuity of a function of two variables; partial differentiation; multiple and line integrals; infinite series; Fourier series; improper integrals and Gamma functions. Differential equations.

Lectures: 2 hours per week for two terms (Chemistry)

Text: Sokolnikoff, *Higher Mathematics for Engineers and Physicists* (McGraw-Hill)

**401 Mathematical Statistics. Full Course.** R. C. Moore

Probability. Discrete and continuous random variables. Distribution functions. Probability generating functions. Characteristic functions. Normal chi-square and F-distributions. Sampling distributions. Confidence intervals, tests of hypotheses. Sufficient statistics, maximum likelihood estimation. Correlation, regression.

Lectures: 3 hours per week.

Text to be announced.

**421 Special Topics in Algebra. Full Course.** H. Kim

This is a continuation of mathematics 321.

It includes Rings and Modules, Structure of Groups, Lattices, Categories and adjoint functors, and Multilinear Algebra.

Lectures: 3 hours per week for two terms.

Text: *Algebra* by MacLane & Birkhoff (MacMillan, 1967)

**430 Real and Complex Analysis. Full Course.**

Rev. E. O'Connor, S.J.

A continuation of Mathematics 330. Functions of a Real Variable; Functions of a Complex Variable.

Lectures: 3 hours per week for two terms.

Texts: *The Theory of Function* by Titchmarsh (Oxford)

*Theory of Functions, Part II* by K. Knopp (Dover)

**440 Numerical Analysis. Full Course.**

J. B. Sabat

Polynomial approximation, interpolation. Numerical differentiation, quadrature, and summation. Numerical solution of ordinary differential equations. Functional approximations, least squares techniques, minimum maximum error techniques. Solution of nonlinear equations. Solution of simultaneous linear equations. Calculation of eigenvalues and eigenvectors of matrices.

Lectures: 3 hours per week for two terms.

Text: *A First course in Numerical Analysis* by A. Ralston (McGraw-Hill, 1965).

**460 Introduction to Topology. Full Course.**

J. Soric

This is an introductory course in point — set topology, with a considerable stress on metric spaces. The standard topics are covered: sets and functions, metric spaces, topological spaces, compactness, separation axioms, connectedness, approximation.

Lectures: 3 hours per week for two terms.

Prerequisite: Math 330 or Permission of Instructor.

Text: *Introduction to Topology and Modern Analysis* by Simmons (McGraw-Hill)

**470 Tensor Analysis. Half Course.**

T. Srivastava

Transformation Laws of Contravariant, covariant and relative tensors; connections, covariant and intrinsic derivatives. Curvature tensors. Parallel displacement. Bianchi and Veblen identity. Riemannian metric, christoffel symbols. Curvature tensors with respect to christoffel symbols. Differential operators, geodesics, geodesic coordinates. Riemannian curvature.

Lecture: 3 hours per week, first term.

Text: *An Introduction to Riemannian Geometry and Tensor Calculus* by C. E. Weatherburn (Cambridge University Press)

**471 Differential Geometry: Half Course.**

T. Srivastava

Conformal geometry. Orthogonal basis. Curl of congruence. Canonical congruences. Gaussian and Riccian curvature. Existence of normals. Gauss formula. Tensor derivative of the normal vector, lines of curvature. Generalized Mainardi-Codazzi and Gauss equations. Flat space, subspaces of an Euclidean space. Evolute of  $V_n$  immersed in  $E_n + 1$ .

Lecture: 3 hours per week. Second term.

Text: *An Introduction to Riemannian Geometry* by Eisenhart. (Princeton University Press)

**480 Number Theory. Full Course.**

K. N. Majumdar

This course covers the standard classical results of Fermat, Euler, Gauss and other relating to arithmetical functions, theory of congruences, detailed study of quadratic congruences, some additive number theory Bertrand "postulate", elementary distribution theory of primes.

Lectures: 3 hours per week for two terms.

References: *An Introduction to the Theory of Numbers* by Hardy & Wright (Oxford)

*Topics in Number Theory*, Vol. I and II by Le Veque

**490 History of Mathematics. Half Course.**

I. Shtern

The development of Mathematics from ancient to modern times, including study of prominent mathematicians and their works. Problems will be worked using both modern and historical approaches.

Lectures: 1 hour per week for two terms.

Text: *An Introduction to the History of Mathematics* by H. Eves (Rev. Edition) (Holt Rinehardt & Winston)

## PHILOSOPHY

J. P. Doyle, Associate Professor (Chairman)  
 R. C. Hinners, Associate Professor  
 A. S. Kawczak, Associate Professor (on leave)  
 V. J. McNamara, Associate Professor  
 J. D. Morgan, Associate Professor  
 B. Cavanaugh, Assistant Professor  
 E. Egan, Assistant Professor  
 B. Flynn, Assistant Professor  
 E. Joos, Assistant Professor  
 H. H. Lau, Assistant Professor  
 J. G. McGraw, Assistant Professor  
 D. Park, Assistant Professor  
 M. F. Reidy, Assistant Professor  
 G. Beretta, Lecturer  
 C. Gray, Lecturer  
 C. O'Neill, Lecturer



### Courses leading to an Honours B.A. in Philosophy.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English French Two Electives	Classics 112 or 202 or 212 or 221 Language PHILOSOPHY 200 HISTORY OF PHILOSOPHY Theology One Elective	HISTORY OF PHILOSOPHY PHILOSOPHY SEMINAR PHILOSOPHY (Two Electives) Theology	HISTORY OF PHILOSOPHY PHILOSOPHY SEMINAR PHILOSOPHY (Two Electives) One Elective

### Courses leading to a B.A. with a Major in Philosophy.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French Two Electives	Classics 112 or 202 or 212 or 221 English French HISTORY OF PHILOSOPHY PHILOSOPHY 200 Theology	HISTORY OF PHILOSOPHY PHILOSOPHY SEMINAR Theology Two Electives	HISTORY OF PHILOSOPHY PHILOSOPHY SEMINAR Three Electives

Note: The requirement in Philosophy is satisfied by Phil. 200, plus one course from the 300 series.

Courses numbered 320-329 and 420-429 are scheduled to be available to students in the Faculty of Science, and are normally restricted to them.

Courses numbered 330-339 are scheduled to be available to students in the Faculty of Commerce, and are normally restricted to them.

Courses numbered 500-519 are open to Philosophy Majors and Honours students, and to others with the permission of the Department.

Supplementary information regarding the courses listed below will be made available at a later date.

### 200 Introduction to Philosophy.

Staff

A consideration of major problems in philosophy and types of answers given to them. This course is a prerequisite for any further courses.

Lectures: 2 hours per week for two terms.

### 305 Analytic Philosophy.

C. Gray

Lectures: 2 hours per week for two terms.

### 307 Introduction to Existential Phenomenology. G. Beretta

A survey including aspects of the philosophy of Kierkegaard, Husserl, Heidegger, Marcel, Jaspers, Sartre, Merleau-Ponty.

Lectures: 2 hours per week for two terms.

### 308 Philosophy of living things.

B. Cavanaugh

Lectures: 2 hours per week for two terms.

### 309 Philosophy of Education.

H. H. Lau

Examination of philosophical positions underlying educational theory. A study of the problems which arise when a theory of education is put into practice. Consideration of trends in Philosophy of Education today.

Lectures: 2 hours per week for two terms.

### 312 Philosophy of Knowledge.

Lectures: 2 hours per week for two terms.

### 313 Social Philosophy.

Lectures: 2 hours per week for two terms.

### 314 Ethics:

J. P. Doyle

A consideration of principles underlying moral evaluation, with reference to classical and other positions.

Lectures: 2 hours per week for two terms.

### 315 Philosophy of God.

J. G. McGraw

The problem of the natural knowledge of God including readings from Plato, Aristotle, Anselm, Aquinas, Descartes, Hume, Pascal, Kant, Hegel, Feuerbach, Marx, Kierkegaard, Newman, Nietzsche, Sartre, Ayer, and Russell.

Lectures: 2 hours per week for two terms.



**317 Ethics:**

D. Park

An analysis of some major questions discussed in the writings of Plato, Aristotle, Epictetus, Hobbes, Bentham, Butler, Mill, and Kant.

Lectures: 2 hours per week for two terms.

**318 Ethics and Society.**

R. Hinners

Classical types and perennial problems of social and political philosophy with particular attention to their moral bases and consequences; a general consideration of classical concepts of legal and moral rules, rights and obligations, authority, the state, freedom and justice as exemplified in the writings of Plato, Aristotle, Aquinas, Hobbes, Locke and Mill; a more detailed consideration of the notions of history, ideology, social violence, technology and work as practised in contemporary societies and as conceived in the writings of Marxist and non-Marxist social theoreticians.

Lectures: 2 hours per week for two terms.

**319 Metaphysics.**

E. Joos

Discussion of the question 'What is being?' (Parmenides, Plato, Aristotle) — The theory of Forms and Aristotle's criticism. Substance — four causes — potentiality and actuality (Aristotle) — Causality of *Esse* (S. Th. Aquinas).

Lectures: 2 hours per week for two terms.

Texts: Cornford, *Plato's Theory of Knowledge* (The Theatetus and Sophist of Plato); Aristotle, *Metaphysics*; S. Th. Aquinas, *De Ente et Essentia* (On Being and Essence).

**321 Philosophy of Man.**

B. Cavanaugh

Lectures: 2 hours per week for two terms.

**322 Philosophy of Knowledge.**

H. H. Lau

A study of texts of Plato, Aristotle, Descartes, Berkeley, Hume, Kant, and Peirce.

Lectures: 2 hours per week for two terms.

**323 Political and Social Philosophy.**

The course treats of the individual in relation to the State and Society through the reading and discussion of selected texts. Problems treated: political authority, its sources and varieties; the limits of political authority; classical images of man; personality and society; the paradox of social control.

Lectures: 2 hours per week for two terms.

Text: *Political Man and Social Man*, Ed. Robert Wolff.

**324 Ethics.**

J. D. Morgan

Questions in Moral Evaluation of Human Conduct. A consideration of the history of Ethics, with special emphasis on Aristotle. The application of moral positions to contemporary problems, especially the problems of civil disobedience, capital punishment and sexual experience.

Lectures: 2 hours per week for two terms.

**325 Philosophy of Religion.**

G. Beretta

A detailed study of excerpts from philosophers representing the major attempts to give a proof of the existence of God (Plato, Anselm, Aquinas, Descartes, Kant, and some contemporary authors). A discussion of influential forms of Atheism.

Lectures: 2 hours per week for two terms.

Text: J. Hick: *The Existence of God*.

Readings: J. A. Robinson: *Honest to God*; E. Fromm: *Psychoanalysis and Religion*.

**327 General Dialectics.**

M. F. Reidy

Studies in the practical structure of decisive argument and the theories upon which it is based.

Readings: Plato, Aristotle, Abelard, Thomas Aquinas, Ramus, Hegel, and others.

Lectures: 2 hours per week for two terms.

**331 Philosophy of Man.**

C. Gray

The place philosophy holds for man studied via the traditional problem outline (Human life, faculties, and direction) supplemented by scientific studies and original philosophers.

Text: Donceel, *Philosophical Anthropology*.

**333 Social Philosophy.****410 Philosophy of History.**

R. C. Hinners

The problem of historical knowledge and explanation and its relation to ideological, metaphysical and religious ideas of historical development and of the meaning of history. Study of selected texts of St. Augustine, Hegel, Marx, Heidegger, Collingwood, and others.

Lectures: 2 hours per week for two terms.

**411 A History of Ancient Western Philosophy.**

M. F. Reidy

A study of the major figures in Greek and Roman philosophy from Thales to Plotinus.

Lectures: 2 hours per week for two terms.

**412 Mediaeval Philosophy.**

E. Joos

The aim of the course is to link mediaeval philosophy with ancient and contemporary problems. The historical and philosophical background: Plato and the Academy; Late Antiquity; the Greek and Christian *Logos*; Patristic Period; Plotinus and St. Augustine; St. Augustine's *Confessions* and Modern Existentialism; Boethius and Abelard — the problem of Universals; Aristotle's entry into the Middle Ages; St. Th. Aquinas; the continuity of the Augustinian tradition — *The Mind's Road to God* (St. Bonaventure).

Texts: St. Augustine, *The Confessions*; Boethius, *The Consolation of Philosophy*; St. Bonaventure, *The Mind's Road to God*; *Selections from Mediaeval Philosophers*, Ed. R. McKeon.

**413 Modern Philosophy (Topics for 1968-69: Hume and Kant)**

D. Park

A systematic study of some major concepts in the writings of Hume and Kant. Required reading will include the *Treatise*, *Enquiry*, and *Critique of Pure Reason*.

Lectures: 2 hours per week for two terms.

**414 Contemporary Philosophical Movements.**

(Not offered 1968-69)

**416 Aesthetics.**

E. Egan

The notion of creative art as knowledge, as involved in the creation and appreciation of the artifact; taste and value judgment in relation to the ethical, religious, and psychological dimensions of art; the relationship of creativity and taste to the social and cultural environments, with critical attention to any dualistic bias which would relegate artistic meaning to "mere aesthetics".

Lectures: 2 hours per week for two terms.

Readings include: Ernst Fischer, H. Marshall McLuhan, Arnold Hauser, Maritain, Dewey, van der Leeuw, Vivas, Auerbach, and Ben Shahn.

**417 Political Philosophy.**

V. J. McNamara

Treats of the theoretical foundations of Communism, Fascism, and Democracy through the reading and discussion of selected texts.

Lectures: 2 hours per week for two terms.

Text: *Communism, Fascism, and Democracy*, Ed. Carl Cohen.

**422 Logic and Scientific Method.**

(Not offered 1968-69)

**423 Marxism and Existentialism****424 Moral Philosophy.**

E. Egan

The meaning of situation ethics over against the problem of the moral absolute; the religious and metaphysical implications of ethical options; the relation of joy to moral wholeness and maturation. A criteriology for morals will be sought through an open discussion of concrete problems, with special attention to sex, violence, and money.

Lectures: 2 hours per week for two terms.

Readings include Walter Dirlss, Gabriel Marcel, Jacques Leclercq, Henri Duméry and Paul Ricoeur.

**426 Death as a Philosophical Problem.**

J. D. Morgan

A consideration of the mortality of man and the implication that this mortality has for a total philosophy of man.

Lectures: 2 hours per week for two terms.

**518 Seminar.****519 Seminar (Problems in Epistemology)**

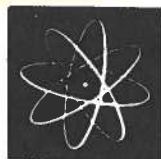
B. Cavanaugh, D. Park

**520 Seminar (German Philosophy).**

B. Flynn

## PHYSICS

C. E. Eappen, Associate Professor (Chairman)  
 S. N. Bagchi, Professor  
 N. DeTakacsy, Assistant Professor  
 K. Ford, Lecturer  
 R. L. Kovacs, Assistant Professor  
 W. P. Long, S.J., Sessional Lecturer  
 Rev. H. J. MacPhee, S.J., Professor  
 S. Santhanam, Assistant Professor  
 J. Shin, Assistant Professor



### Honours and strong Major programme

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101	Mathematics 231	Philosophy	English
Chemistry 102	Mathematics 234	PHYSICS 306 or 302	PHYSICS 304 or 310
French	Philosophy	PHYSICS 310 or 304	PHYSICS 305
Mathematics 120	PHYSICS 205	PHYSICS 304	PHYSICS 403
Mathematics 131	PHYSICS 220	PHYSICS 307	PHYSICS 404 or 306
PHYSICS 101	PHYSICS 301	PHYSICS 320	PHYSICS 408
Theology	PHYSICS 309	PHYSICS 410	PHYSICS 411
One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 Mathematics 121		Theology	PHYSICS 420 Theology or Philosophy

Students contemplating Honour or Strong Major Programme should take Mathematics 121 in first year.  
 Strong Majors do not take Physics 404, 408, 410, 411 and 420.

### Major Programme\*

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101	Chemistry 231	Mathematics 234	English
Chemistry 102	Mathematics 231	Philosophy	PHYSICS 302
French	Mathematics 221	PHYSICS 301	PHYSICS 311
Mathematics 120	PHYSICS 205	PHYSICS 304	Philosophy or
Mathematics 131	Philosophy	PHYSICS 307	Theology
PHYSICS 101	Theology	Science Elective	One Elective
Theology			
One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 Mathematics 121			

\*Will not be offered after 1968-1969.

### General B.Sc. in Physics

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101	Mathematics 232	Philosophy	English
Chemistry 102	Philosophy	PHYSICS 307	Philosophy or
French	PHYSICS 201	PHYSICS 311	Theology
Mathematics 120	PHYSICS 205	Sc. Elective 1*	PHYSICS 302
Mathematics 131	One Elective from: Biology Chemistry 231 Geot. Sc.	Theology	PHYSICS 304
PHYSICS 101			Sc. Elective 11*
Theology			
One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 Mathematics 121			

\*Subjects to be decided by the department.

### 101 General College Physics. Full Course.

An introductory course on the elements of mechanics, sound, heat, electricity and light.

Lectures: 3 hours per week for two terms.

Lab.: 1 period per week for two terms.

Text: Sears and Zemansky: College Physics (Addison Wesley).

### 103 Heat and Sound. Half Course.

Gas laws, kinetic theory, thermodynamics, expansion, changes of state, heat transfer. Vibration, waves and acoustics.

Lectures: 2 hours per week plus one hour every alternate week first term.

Lab.: 2 hours per week first term.

Text: To be announced.

### 201 Heat, Light and Sound. Full Course.

Lectures: 3 hours per week for two terms.

Lab.: 1 period per week for two terms.

Text: To be announced.

### 205 Electricity and Magnetism. Full Course.

Electrostatic field, capacitance, dielectrics, direct current circuits, thermoelectricity, magnetic fields, electromagnetic induction, alternating current circuits, Maxwell's equations.

Lectures: 3 hours per week for two terms.

Lab.: 1 period per week for two terms.

Text: KIP: Fundamentals of Electricity and Magnetism (McGraw-Hill)

### 206 Electricity and Light. Full Course.

Electrostatic field, capacitance, dielectrics, Gauss' theorem, direct current and resistance measurements, magnetic field, electromagnetic induction, Maxwell's equations and electromagnetic waves. Waves and rays, lenses, the eye, illumination and optical instruments.

Lectures: 2 hours per week for two terms.

Lab.: 2 hours per week for two terms.

Text: To be announced.

Note: About one quarter of the course will be spent on Light.

### 220 Methods of Mathematical Physics I. Full Course.

Elementary linear algebra from the standpoint of physics: Finite dimensional vector spaces, matrices and determinants, transformations of co-ordinates, systems of simultaneous linear equations, characteristic value problems and quadratic forms, vector analysis, tensors of second rank, polynomials.

Lectures: 3 hours per week for two terms.

References: Hadley, Linear Algebra (Addison-Wesley); Vector Analysis (Schaum's Series).



**301 Optics. Half Course.**

Principles of geometrical and physical optics, interference, diffraction, polarisation, double refraction.

Lectures: 3 hours per week, first term.

Text: Morgan: Introduction to Geometrical and Physical Optics. (McGraw-Hill).

**302 Modern Physics. Full Course.**

Part I: special relativity, quantum effects, particle aspects of electromagnetic radiation, wave aspects of material particles, nuclear atom and Bohr theory, elementary quantum mechanics of atoms.

Part II: X-ray spectra, radioactivity, nuclear structure, accelerators and detectors, nuclear reactions.

Lectures: 3 hours per week for two terms.

Text: Weidner and Sells, Elementary Modern Physics (Allyn and Bacon).

**303 Modern Physics. Half Course.**

This is Part I of Physics 302, taken during first term.

**304 Thermodynamics. Half Course.**

An introductory course in thermodynamics and kinetic theory. It includes the first and second laws of thermodynamics with ample applications and introduces the Helmholtz and Gibbs functions.

Lectures: 3 hours per week, second term.

Text: Sears, Introduction to Thermodynamics, Kinetic theory and Statistical Mechanics (Addison Wesley).

**305 Statistical Mechanics. Half Course.**

(Not offered in 1968-69)

Lectures: 3 hours per week, second term.

Text: To be announced.

**306 Modern Physics and Introduction to Quantum Mechanics. Full Course.**

Relativity, classical experiments and theories of thermal radiation, electrons, photon interactions, atomic models and spectra, Bohr-atom, old quantum mechanics: Solutions to Schrodinger's equation for barriers, well potentials, harmonic oscillator and one-electron atoms, perturbation theory, magnetic moments, spin, identical particles, multi-electron atoms, molecules, X-rays.

Lectures: 3 hours per week for two terms.

Lab.: 1 period per week for two terms.

Text: Eisberg, Fundamentals of Modern Physics (John Wiley).

**307 Electronic Circuits. Full Course.**

AC and DC circuit network theory, introduction to semi conductor theory, analysis of half-wave and full wave power supplies and filter networks, voltage clamper, doubler and n-tupler, transistor principles, amplifiers and their equivalent circuits, using h-parameters, vacuum triodes and pentodes, analysis of power amplifiers, oscillators, high frequency and pulse circuits.

Note: Emphasis will be made on solid state devices.

Lectures: 3 hours per week, first term, 2 hours per week second term.

Lab.: 1 period per week for two terms.

Text: Millman and Halkias: Electronic Devices and circuits (McGraw-Hill).

**309 Theoretical Mechanics I. Half Course.**

Reference systems, basic concepts, systems in equilibrium, one-dimensional motion of a particle, kinematics of a system of particles, plane motion of a particle, motion of a system of particles.

Lectures: 3 hours per week, second term.

Text: Prepared notes.

**310 Theoretical Mechanics II. Half Course.**

Plane motion of a rigid body, motion with respect to non-inertial frames, motion of a particle in space, motion of a rigid body about a fixed point, introduction to Lagrange's and Hamilton's equations of motion, introduction to the theory of small oscillations.

Lectures: 3 hours per week, first term.

Text: Prepared notes.

**311 Theoretical Mechanics. Full Course.**

A course treating most of the topics of Physics 309, 310 and 410, but with simpler applications.

Lectures: 3 hours per week for two terms.

Text: Prepared notes.

**320 Methods of Mathematical Physics II. Full Course.**

Calculus of variations, techniques for the solution of partial differential equations of physics by the method of separation of variables with special reference to: vibration of a string vibration of a membrane, the potential equation, equation for heat conduction and diffusion, orthogonal series. Sturm-Liouville problems, elementary properties of Legendre functions, spherical harmonics, Bessel functions, functions of Hermite and Laguerre, Dirac's delta function.

Lectures: 3 hours per week for two terms.

References: Sagan, Boundry and Eigenvalue. Problems of Mathematical Physics (Wiley) Sneddon, Special Functions of Mathematical Physics and Chemistry (Oliver and Boyd), Weinstock, Calculus of Variations (McGraw-Hill), Tolstov, Fournier Series (Prentice Hall).

**403 Electromagnetic Theory. Full Course.**

Analysis of electrostatic and electromagnetic fields, non-stationary fields and Maxwell's equations, waves in source-free space, electromagnetic radiation, basic relativistic electrodynamics.

Lectures: 3 hours per week for two terms.

References: Jackson, *Electrodynamics* (John Wiley); Panofsky and Phillips, *Classical Electricity and Magnetism* (Addison-Wesley).

**404 Nuclear Physics. Full Course.**

Radioactivity, alpha-particle spectra, beta-particle spectra, positron emission, orbital electron capture, gamma ray emission; methods of detecting, identifying and measuring energies of gamma rays and charged particles; theory of energy loss of charged particles and gamma rays in matter.

Nuclear structure and nuclear models, nuclear reactions; neutrons, detection slowing down and diffusion; fission, fusion, chain reaction, nuclear reactors; introduction to high energy physics.

Lectures: 3 hours per week for two terms.

Lab.: 1 period per week for two terms.

Text: Smith, *Nuclear Physics* (Pergamon Press).

References: SeGre, *Nuclei and Particles* (W. A. Benjamin); Kaplan, *Nuclear Physics* (Addison-Wesley), Evans, *Atomic Nucleus* (McGraw-Hill); Preston, *Physics of the Nucleus* (Addison-Wesley).

**408 Elements of Quantum Mechanics and Selected Topics in Contemporary Physics. Full Course.**

Lectures: 3 hours per week for two terms.

**410 Advanced Theoretical Mechanics. Half Course.**

Variational principles in mechanics. Lagrange's equations of motion, central orbits and Rutherford scattering, kinematics of rigid body motion, rigid body equations of motion, small oscillations of discrete particles and of continuous media, Hamilton's equations of motion, canonical transformations, Hamilton-Jacobi theory.

Lectures: 3 hours per week, second term.

Text: Goldstein, *Classical Mechanics* (Addison-Wesley)

**411 Special Relativity. Half Course.**

Classical relativity, first and second postulates, Lorentz transformation, time dilation, length contraction, velocity and acceleration, world vectors, momentum and energy center-of-momentum frames, collision problems, dynamics of a particle, covariant Lagrangian and Hamiltonian equations of motion, geometry of space-time.

Lectures: 3 hours per week, first term.

Text: Smith, *Introduction to Special Relativity* (W. A. Benjamin).

References: Synge, *Relativity, the Special Theory* (North-Holland); Hagerdon, *Relativistic Kinematics* (W. A. Benjamin).

**420 Methods of Mathematical Physics III. Full Course.**

Fourier transforms and convolution operations, Green's function; introduction to integral transforms and linear integral equations. Pfaffian differential forms and equations with applications to thermodynamics; linear partial differential equations of the first order, linear partial differential equations of the second order; Hyperbolic, parabolic and elliptic types.

Lectures: 3 hours per week for two terms.

References: Hosemann and Bagchi: *Direct Analysis of Diffraction by Matter* (North-Holland); Sneddon: *Fourier Transforms* (McGraw-Hill); Sneddon: *Partial Differential Equations* (McGraw-Hill); Miller: *Partial Differential Equations* (John Wiley); Courant and Hilbert: *Methods of Mathematical Physics, Vol. I and II*; Koshlyakov: *Differential Equations of Mathematical Physics* (North-Holland); Lovitt: *Linear Integral Equations* (Dover).

## POLITICAL SCIENCE

H. Habib, Associate Professor (Chairman)  
 K. Oh, Associate Professor  
 R. Coyte, Assistant Professor  
 L. Laszlo, Assistant Professor  
 J. Moore, Assistant Professor  
 D. Porter, Assistant Professor  
 D. Vince, Sessional Lecturer  
 R. Alain, Sessional Lecturer



### Courses leading to a B.A. with a Major in Political Science.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French Two Electives	Classics 112 or 202 or 212 or 221 English French Philosophy 200 POLITICAL SCIENCE 201 Theology	Philosophy POLITICAL SCIENCE (Three Electives) One Elective*	POLITICAL SCIENCE (Three Electives) Theology** One Elective*

A Major in Political Science consists of a minimum of six full courses in the subject. A student majoring in Political Science must include Political Science 201 in his programme. A student may substitute any course from the Social Sciences or the Humanities for a Political Science elective with the approval of the Political Science Department.

### Courses leading to a B.A. with an Honours in Political Science.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111, or 112 or 121 English 101 French Two Electives	English Philosophy POLITICAL SCIENCE 201 POLITICAL SCIENCE 315 Theology One Elective*	Philosophy POLITICAL SCIENCE (Three Electives) One Elective*	POLITICAL SCIENCE 371 H POLITICAL SCIENCE (Three Electives) Theology**

\*Elective: any course in the Humanities or Social Sciences other than Political Science.

\*\*If the Theology requirement is fulfilled in the First Year, then a student will be able to take a Political Science elective in his Fourth Year.

An Honours in Political Science consists of a minimum of six full courses in the subject, and an Honours Senior Seminar. A student honouring in Political Science must include Political Science 201 and 315 in his Sophomore Year, 371 H in his Senior Year. A student may substitute any course from the Social Sciences or the Humanities for a Political Science elective with the approval of the Political Science Department. All Honours students must pass a comprehensive oral examination in their Senior Year.

## 201 An Introduction to Political Science. Full Course.

H. Habib

A basic course in the fundamentals and significance of Political Science.

Lectures: 3 hours per week for two terms.

Texts: Corry and Abraham, *Elements of Democratic Government*. Oxford University Press.

Merkel, *Political Continuity and Change*. Harper and Row.

## 211 Britain and the Commonwealth. Full Course. R. Coyte

Government and Politics of Great Britain, and the nature and future of Commonwealth relations.

Lectures: 3 hours per week for two terms.

Texts: Morrison of Lambeth *Government and Parliament*, Oxford University Press.

Stankiewicz, *Crisis in British Government*, Collier-Macmillan  
 Miller, *The Commonwealth in the World Today*, Duckworth.

## 213 Behavioral Theory and Approaches of Political Science. Full Course.

A systematic study of modern theories of political behavior with emphasis on behavioral methodology and survey techniques. It includes an introduction to behavioral approaches, analysis of system theories, and attempts at survey research.

Prerequisite: Political Science 201 or approval of department.

Lectures: 3 hours per week for two terms.

## 217 The Middle East. Full Course.

H. Habib

Government and Politics of the Middle East. An historical and political survey.

Lectures: 3 hours per week for two terms.

Texts: Kirk, *A Short History of the Middle East*, Methuen; Harari, *Government and Politics of the Middle East*, Prentice Hall; Carmichael, *The Shaping of the Arabs*, Collier-MacMillan.

## 219 The Stages of Political Development. Full Course.

D. Porter

An analysis of factors causing political systems to change. Examination of the traits of each of four stages, from national unification to the politics of abundance, with reference to a variety of specific countries throughout the world.

Text: Organski, *The Stages of Political Development*, Knopf.

Lectures: 3 hours per week for two terms.



**221 The Politics of Race. Full Course.**

D. Porter

A comparative study of the racial factor in contemporary politics. Several political systems will be examined, with special emphasis on white-dominated Southern Africa, colonial Algeria, and the United States.

Texts: van den Berghe, *South Africa: A Study in Conflict*, U. of Cal. Press; Fanen, *The Wretched of the Earth*, Grove Press; *The Autobiography of Malcolm X*, Grove Press.

Lectures: 3 hours per week for two terms.

**229 Public Administration. Full Course.**

D. Vince

A theoretical study of government management and institutions, based on the Canadian administrative experience and related to Anglo-American comparative practice.

Lectures: 3 hours per week for two terms.

Texts: Hodgetts and Corbett, *Canadian Public Administration*, MacMillan; White, *Introduction to the Study of Public Administration*, MacMillan.

**237 International Law. Full Course.**

H. Habib

An Introduction to International Law.

Lectures: 3 hours per week for two terms.

Text: Fenwick, *International Law*, Appleton.

**251 Canadian Government. Full Course.**

D. Vince

An institutional and functional analysis of the political process in Canada.

Lectures: 3 hours per week for two terms.

Text: Dawson, *Government of Canada*, Toronto University Press.

**253 An Introduction to Law and the Canadian Constitution. Full Course.**

R. Alain

An introduction to law in general and the Civil Code, in particular, with references to the Criminal Code, Companies Act, and others. This course will also deal with the Canadian Constitutional System and its major interpretations by the Courts.

Prerequisite: Political Science 201, or 251, or approval of the Department of Political Science.

Lectures: 3 hours per week for two terms.

**257 American Government. Full Course.**

R. Coyte

A study of the American Political Institutions.

Lectures: 3 hours per week for two terms.

Text: Burns and Peltason, *Government of the People*, Prentice Hall.

**271 International Politics. Full Course.**

K. Oh

A theoretical analysis of inter-state relations, drawing upon development in the Foreign Policy, Diplomacy and International Organization of the Twentieth Century.

Prerequisite: Political Science 201, or approval of the Department of Political Science.

Lectures: 3 hours per week for two terms.

Text: Morgenthau, *Politics Among Nations*, Knopf.

**273 International Organization. Full Course.**

L. Laszlo

A survey and analysis of attempts to institutionalize order and change in the international society. Chief emphasis will be upon the United Nations.

Prerequisite: Political Science 201, or equivalent.

Lectures: 3 hours per week for two terms.

Text: Claude, *Swords Into Plowshares*, Random House.

**309 The New Europe. Full Course.**

L. Laszlo

Politics and Economics of European Integration; this will include material on the Council of Europe, European Common Market, the European Free Trade Association and the (COMECON) Council for Mutual Economic Assistance.

Texts: Curtis, *Western European Integration*, Harper & Row (paperback); Kitinger, *The Politics & Economics of European Integration*, Praeger, Lichtheim, *The New Europe*, Praeger.

Lectures: 3 hours per week for two terms.

**311 Comparative Government. Full Course.**

H. Habib

A survey of contemporary political systems, forces and problems in Western Europe with special emphasis on France, Germany and the United Kingdom.

Lectures: 3 hours per week for two terms.

Text: Carter-Hertz, *Major Foreign Powers*. Harcourt, Brace and World.

**315 Political Philosophy. Full Course.**

J. Moore

From ancient Greece to the Renaissance.

Prerequisite: Political Science 201, or approval of the Department of Political Science.

Lectures: 3 hours per week for two terms.

Text: Readings from the major political philosophers of the period. Major students wishing to pursue graduate studies in Political Science are urged to take this course.

**317 Political Philosophy. Full Course.** J. Moore

From the Reformation to the end of the nineteenth century.  
Prerequisite: Political Science 201, or approval of the Department of Political Science.

Lectures: 3 hours per week for two terms.

Text: Readings from the major political philosophers of the period.  
Honours students wishing to pursue graduate studies in Political Science are urged to take this course.

**319 Political Theory. Full Course.** R. Coyte

A critical analysis of contemporary political theory.

Prerequisite: Political Science 201, or approval of the Department of Political Science.

Lectures: 3 hours per week for two terms.

**323 Latin American Government. Full Course.** J. Moore

An analysis of the historical background and of contemporary political processes.

Lectures: 3 hours per week for two terms.

Text: Needler, *Political Systems of Latin America*.

**325 African Government and Politics. Full Course.**

D. Porter

Colonialism, imperialism and the rise of nationalism; government and politics of the independent African states.

Lectures: 3 hours per week for two terms.

**327 Contemporary Politics of the Far East. Full Course.**

K. Oh

An analysis of the political developments of China and Japan since the 19th century with special emphasis on the traditional institutions and social structure; their transformation brought about by the impact of the West; the international relations in East Asia; and the rise of Communism.

Lectures: 3 hours per week for two terms.

**361 The Soviet Union. Full Course.**

R. Coyte

Government and Politics of the Soviet Union. Basic theories of Communism; evolution of the Soviet System.

Lectures: 3 hours per week for two terms.

Text: McClosky and Turner, *The Soviet Dictatorship*, McGraw-Hill.

**363 Eastern European Governments. Full Course.** L. Laszlo

A study of the constitutional, political, and administrative systems of the East European states. (East-Germany, Poland, Czechoslovakia, Hungary, Roumania, Yugoslavia, Bulgaria, Albania).

Text: Skilling, *The Governments of Communist East-Europe*, Thomas Crowell.

Lectures: 3 hours per week for two terms.

**371 Senior Seminar. Full Course.**

K. Oh

Workshop in Problems of Political Science, Method of group Inquiry used to forward constructive, critical thinking and jointly reached conclusions.

Seminar: 3 hours per week for two terms. Tutor will direct work in first term.

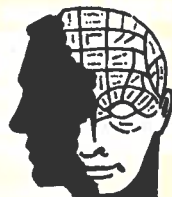
**371H Senior Seminar. Full Course.**

Workshop in Problems of Political Science, Method of Group Inquiry used to forward constructive, critical thinking and jointly reached conclusions.

Seminar: 3 hours per week for two terms. Tutor will direct work in first term. Open only for Honours Students.

## PSYCHOLOGY

V. Maheux, Associate Professor (Chairman)  
 J. J. Lavery, Associate Professor  
 J. H. Bauer, Assistant Professor  
 H. W. Ladd, Assistant Professor  
 Elizabeth C. Mouledoux, Assistant Professor  
 D. Shacter, Assistant Professor  
 Selma Greenblatt, Lab. Instructor



### PREAMBLE

The Department of Psychology offers a Major programme leading to both a B.A. and a B.Sc. The curriculum is designed to provide a general cultural training and to give adequate preparation for graduate studies in Psychology.

A Major in Psychology consists of a minimum of six courses in the subject. B.A. students majoring in Psychology must include Statistics & Research Methods in their major programme; B.Sc. students must include Statistics & Research Methods and Physiological Psychology.

#### Courses leading to a B.A. with a Major in Psychology

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French Two Electives*	Statistics 202 Classics 112 or 202 or 212 or 221 French Philosophy PSYCHOLOGY 201 Theology	PSYCHOLOGY 305 Theology Three Electives**	English Philosophy Three Electives**

\*Freshmen students planning to major in Psychology are strongly recommended to take Biology 101 and Mathematics 101 as electives.

#### Courses leading to a B.Sc. with a Major in Psychology

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Chemistry 101 Chemistry 102 French Mathematics 120 Mathematics 131 Physics 101 Theology One Elective (in 2nd term) from: Biology 101 Geot. Sc. 202 Mathematics 121	Statistics 202 Chemistry 221-222 English Philosophy PSYCHOLOGY 201 Theology	Biology 331 Philosophy PSYCHOLOGY 305 Two electives**	Philosophy or Theology PSYCHOLOGY 401 Three Electives**

\*\*Students may choose their electives from Biology, Chemistry, Communication Arts, English, French Studies, Modern Languages, Psychology, Sociology, etc. B.A. students may choose physiological Psychology as an elective with the permission of the Chairman of the Psychology Department. In choosing their electives, students should consult as to prerequisites with the Departments concerned.

### 201 Introduction to Psychology. Full Course. J. J. Lavery

Presents a biological approach to the study of mind and behavior. Research in the areas of learning, sensation and perception, intelligence, motivation, emotion will be discussed.

Prerequisite to all other courses in Psychology.

Lectures: 3 hours per week for two terms.

Text: D. O. Hebb, A Textbook of Psychology, Saunders, 1966.

### 202 Statistics. Full Course.

The course in Introductory Statistics is designed to introduce a limited number of basic concepts and techniques to the student in Psychology.

These basic concepts and techniques will enable the student to gain both a deeper understanding of many areas of modern psychology, and to design and complete experimental studies. Required for all 2nd year Majors in Psychology.

Lectures: 3 hours per week for two terms.

Laboratory: 2 hours per week for two terms.

Text: To be announced.

### 301 Developmental Psychology. Full Course.

Elizabeth C. Mouledoux

A study of physical, cognitive, emotional and social development from conception to old age, with emphasis on childhood and adolescence and on normal development, with some study of age-related deviant patterns. A research paper based on systematic observation of and/or experimental procedures with children or adolescents will be required.

Lectures: 3 hours per week for two terms.

Text: To be announced.

### 302 Social Psychology. Full Course.

D. Shacter

The study of man in his social relations. The course concentrates on motives, perceptions, prejudice, values, group processes, leadership, etc.

Lectures: 3 hours per week for two terms.

Text: To be announced.

### 303 Personality: Normal and Abnormal. Full Course.

D. Shacter

Survey of Personality structure and theories. Emphasis will be placed on the study of normal personality. Symptoms and dynamics of neuroses, psychoses, and other behavior disorders will be included for the purpose of clarifying normal personality processes.

Lectures: 3 hours per week for two terms.

Text: To be announced.



**304 Motivation. Full Course.**

J. J. Lavery

A study of determinants (neural, hormonal, experiential) of activity. The variability of behavior (e.g. eating behavior, sexual behavior, exploration, play), is discussed in terms of homeostasis, pleasure, arousal, disparity, etc.

Lectures: 3 hours a week for two terms.

Text: To be announced.

**305 Statistics and Behavioral Analysis. Full Course.**

J. H. Bauer, H. W. Ladd

The first half of this course is designed to introduce a limited number of basic statistical concepts and techniques to students in Psychology.

The second half of the course is concerned with experimental methodology; i.e., design and analysis of experiments. Students are required to design, conduct, analyze and report on a number of experiments.

Required course for all majors in Psychology.

Lectures: 3 hours per week for two terms.

Laboratory: 3 hours per week for two terms.

Text: To be announced.

**306 Learning. Full Course.**

H. W. Ladd

The course is a detailed examination of behavior in terms of the principles of conditioning and learning. The course material is approached strictly from an experimental, empirical point-of-view.

Lectures: 2 to 3 hours per week for two terms.

Laboratory: To be scheduled.

Texts: Kimble, G., Hilgard and Marquis' *Conditioning and Learning* (rev. ed), Appleton-Century-Crofts, 1961.

Mednick, S., *Learning*, Prentice-Hall, Foundation of Modern Psychology Series, 1964, Paperback.

**307 Animal Behavior. Full Course.**

J. H. Bauer

The study of animal behavior, its description, function and causes, from a comparative bio-psychological point of view.

Lectures: 3 hours per week for two terms

Laboratory: To be scheduled during regular classes.

Text: To be announced

**308 Perception. Full Course.**

The course is directed towards an understanding of the regularities and the integrative processes of the central nervous system during sensory experience.

Visual perception and auditory perception will be considered in more detail than cutaneous and chemical perception.

Lectures: 2 to 3 hours per week for two terms.

Laboratory: To be scheduled.

Text: To be announced.

**401 Physiological Psychology. Full Course.**

V. Maheux

A study of the physiological basis of behavior: sensory systems, response mechanisms, nervous system.

Lectures: 2 to 3 hours per week for two terms.

Laboratory: To be scheduled

Text: To be announced.

**402 Advanced Experimental Psychology. Full Course.**

V. Maheux

A seminar series dealing with selected problems in the fields of emotion, learning, motivation, perception, etc.

Seminars: 2 to 3 hours per week for two terms.

Laboratory: To be scheduled.

Text: To be announced.

**403 History of Psychology. Full Course.**

Elizabeth C. Mouldoux

A survey of the historical antecedents of modern experimental and applied psychology, with application of the historical perspective to understanding some current theories, issues and trends within the discipline.

Lectures: 3 hours per week for two terms.

Text: To be announced.

## SOCIOLOGY

J. Tascone, Assoc. Prof. (Chairman)  
 G. Dewey, Assoc. Prof.  
 R. Henry, Asst. Prof.  
 T. McPhail, Asst. Prof.  
 J. Norris, Asst. Prof.  
 L. Menard, Lecturer  
 N. Rolland, Lecturer (Anthropology)  
 L. Snider, Lecturer



### Course List for 1968-69

#### Full Courses

Sociology 100 (1)	The Sociology of Social Problems	L. Menard
Sociology 100 (2)	The Sociology of Social Problems	L. Menard
Sociology 100 (3)	The Sociology of Social Problems	R. Henry
Sociology 100 (4)	The Sociology of Social Problems	G. Dewey

Note: Each section of the above course will meet twice weekly for the full year at the regularly scheduled time. The third meeting of the week for all will be held in the Main Auditorium.

Sociology 200 (1)	Social Psychology	J. Norris
Sociology 200 (2)	Social Psychology	J. Norris
Sociology 200 (3)	Social Psychology (For Communication Arts Majors ONLY)	T. McPhail
Sociology 300 (1)	Social Research Methodology	L. Menard
Sociology 400 (1)	Sociological Theory	G. Dewey
Sociology 500 (1)	Social and Cultural Anthropology	N. Rolland
Sociology 600 (1)	Introduction to Social Work	L. Snider

#### Half Courses FIRST TERM

Sociology 201 (1)	Systematic Sociology	G. Dewey
Sociology 203 (1)	Canadian Society	L. Snider
Sociology 203 (2)	Canadian Society	L. Snider
Sociology 205 (1)	Criminology and Delinquency	R. Henry
Sociology 205 (2)	Criminology and Delinquency	R. Henry
Sociology 301 (1)	Sociological Statistics	J. Norris
Sociology 303 (1)	Sociology of Urban Regions	T. McPhail
Sociology 305 (1)	Marriage	J. Tascone
Sociology 305 (2)	Marriage	J. Tascone
Sociology 309 (1)	Mass Communications	T. McPhail

#### Half Courses SECOND TERM

Sociology 202 (1)	Mass Society	L. Snider
Sociology 203 (1)	Canadian Society	L. Snider
Sociology 204 (1)	Minority Groups	R. Henry
Sociology 204 (2)	Minority Groups	R. Henry
Sociology 206 (1)	Social Deviance	J. Norris
Sociology 306 (1)	The Family	J. Tascone
Sociology 306 (2)	The Family	J. Tascone
Sociology 308 (1)	The Sociology of Religion	G. Dewey
Sociology 402 (1)	Political Sociology	T. McPhail
Sociology 402 (2)	Political Sociology	T. McPhail

### Program leading to a B.A. with a Major in Sociology

#### FIRST YEAR

English 101  
 French  
 Classics 102, 111, 112, or 121  
 Mathematics\* or History or Theology  
 Sociology 100 or Economics or a Modern Language other than French\*\*

\*Students are recommended to elect Mathematics 101 if they have not completed Intermediate Algebra and Trigonometry in High School

\*\*Sociology 100 is recommended but not required for entry into the programme in Sociology

#### SECOND YEAR

First Term	Second Term
English	English
French	French
Classics	Classics
Sociology 200	Sociology 200
Sociology 201	Sociology elective (202, 203, 204, or 206)
Theology	Theology

#### THIRD YEAR

First Term	Second Term
Sociology 300	Sociology 300
Sociology 301	Philosophy
Philosophy	Electives (3)*
Electives (2)*	Theology
Theology	

#### FOURTH YEAR

First Term	Second Term
Sociology 400	Sociology 400
Philosophy	Philosophy
Electives (3)*	Electives (3)*

\*Minimum of twenty-two full courses or equivalent combination of full and half courses including seven full courses (excluding Sociology 100) in Sociology or equivalent combination of full and half courses are required for a major in Sociology. Sociology 200, 201, 300, 301 and 400 are required.

Courses with 0 as the last digit are all full courses

Courses with an odd number are First Term half courses (except Sociology 203 — Canadian Society which will be offered every Term.)

Courses with an even number are Second Term half courses

Sociology 202 — Cross Listed with Communication Arts Department

Sociology 309 — Cross Listed with Communication Arts Department

Sociology 310 — Social Problems in Newly Developing Countries will be offered in 1969-70 and cross-listed with African Studies Centre.



## FULL COURSES

### 100 The Sociology of Social Problems.

Descriptions, analyses and explanations of the critical problems confronting contemporary Western societies form the subject matter for this course. Those problem areas include population, crime and delinquency, marital and familial breakdown, racial, ethnic and religious conflict, and such personal deviations as alcoholism and drug addiction. Poverty, dependency and population pressures provide the framework within which certain of the above are examined. Existing operational programs, proposed approaches and theories advanced which aim at the elimination of any or all of these problems are appraised within the sociological perspective.

First year students ONLY. No pre-requisites.

Full Course

### 200 Social Psychology.

A survey of the earliest social psychologists such as Comte, Tarde, LeBon and Mead and others form the basis of this course. After an examination of the relationship of this newest behavioural science to sociology, psychology and anthropology, attention will be focused upon learning, perception, motivation, attitude formation and change. The last half of the year will be devoted to a study of roles, the socialization process, communication and persuasion.

Required of ALL Sociology majors. No pre-requisites.

Full Course

### 300 Social Research Methodology.

A study of the problems and procedures in sociological research. Special emphasis is upon the conceptualization process, hypothesis formation and testing and of the role of research in relation to theory. Data collection instruments and devices, including those which involve scaling and other forms of quantification of sociological variables and attributes will be examined as will those developed by the sociometric approach.

Required of ALL Sociology majors.

Prerequisites: In 1968-69, satisfactory completion of Sociology 101 as described in the 1967-68 Calendar. Thereafter, students must have completed Sociology 200 or Sociology 201.

Full Course.

### 400 Sociological Theory.

Early in the course, an historical survey of the social thought from Comte to Parsons is undertaken. Thereafter, a critical analysis of the competing theoretical systems in Sociology will be undertaken. A detailed examination of the symbolic interactionist and of the structure-functionalist positions completes the subject matter of this course.

Required of ALL Sociology majors.

Prerequisites: Full fourth year standing in Sociology or another social-behavioural science.

Full Course.

### 500 Social and Cultural Anthropology.

A presentation of the theories concerning the origin of man and his cultures opens this course. Also studied will be the dynamic aspects of culture with special attention directed to the processes of invention, diffusion, adaptation and integration as factors in social and cultural change. Cross-cultural studies, particularly those documented in the Human Relations Area Files constitute the foundation of this subject area.

Recommended for 3rd and 4th year students who have completed Sociology 100 or its equivalent.

Full Course.

### 600 Introduction to Social Work.

This course is intended to provide the student who is giving consideration to Social Work as a career an opportunity to finalize a decision by examining the nature and scope of this profession, its history and methods, and of the basic elements of the casework process, namely, the study, diagnosis and treatment procedures. Also examined will be the role of community resources in the casework approach.

This course is not acceptable as fulfilling any of the requirements for a major in Sociology but may be undertaken as an elective by students who have satisfactorily completed the first two years of study in Sociology, Psychology, Political Science, History or Economics.

Full Course.

## HALF COURSES

### 201 Systematic Sociology.

An examination of the structures and processes of society using the basic concepts of scientific sociology. This course will also study the methods, theories and goals of the contemporary scientific and theoretical approaches to an understanding of social behaviour.

Required of ALL Sociology majors.

No pre-requisites.

First Term.

### 202 Mass Society.

Collective behaviour including fads, fashions, crazes, mobs, riots, social movements and publics are analyzed and explained within a social-psychological framework. The origins and dynamics, internal and external, of social action and pressure groups are discussed. Mass communications, in terms of form and content are studied as factors in the various forms of collective behaviour.

The implications of mass leisure with population qualities such as age, sex, racial and religious factors in urban centers are appraised.

Prerequisites: In 1968-69, satisfactory completion of Sociology 101 as described in the 1967-68 Calendar. Thereafter, students must have completed Sociology 100 or Sociology 200.

Second Term.



**203 Canadian Society.**

An exploration of the structure and dynamics of Canada with special emphasis upon its socio-economic class system. Using age, race, religion, ethnicity and sex as variables, comparisons will be made between Canada and other Western societies, particularly that of the United States. Inferences will be limited to those with empirically rooted validity and reliability.

Prerequisites — None  
Offered both terms.

**204 Minority Group Relations.**

A systematic and objective analysis of the status of racial, ethnic, cultural and religious minorities and of the minority majority relationship patterns drawing principally from Canadian and American studies but also from other cross-cultural materials. The consequences of majority or minority group status upon the socialization process for children in the respective groups are also studied.

Prerequisites — None  
Second Term.

**205 Criminology and Delinquency.**

A study of crime and delinquency as social phenomena, the etiology of crime and the methods used to punish and/or reform the criminal are the principal areas of study in this course. Attention is also given to types of crime and criminals, organized crime, white-collar crime, the sociology of criminal law and the prison system.

Prerequisites — None  
First Term.

**206 Social Deviance.**

An examination of deviations from social norms which encounter social forms of disapproval and to which concepts and theories derived from contemporary scientific Sociology and Social Psychology may be applied.

Prerequisites — none.  
Second Term.

**301 Sociological Statistics.**

This course will study sample data descriptions and summarizations (means, medians, standard deviations etc.) in the beginning. The remainder of the term is directed to elementary probability theory and of its application to statistical inference and sampling. Parametric and non-parametric tests of significance and a brief introduction to correlation analysis and analysis of variance constitute the areas of study in the last weeks of the term.

Required of ALL Sociology majors.  
Prerequisites — same as Sociology 202.  
First Term.

**302 Population and Demography.**

An examination of present and future population densities, growth and composition and of factors related to population or demographic changes. Special attention is directed in the last half of the term to the "population explosion" as a social problem.

Prerequisites — same as Sociology 202.  
Will not be offered in 1968-69.

**303 The Sociology of Urban Regions.**

A study of the process of urbanization as a world phenomenon. Analyses of urban ecology, urban social organization and structures, urban "personalities", leisure and human relations in cities form the principal areas of study in this course. City planning and redevelopment programs are critically examined.

Prerequisites — same as Sociology 202 or approval of Department.  
First Term.

**304 Organizations and Associations.**

The formal and informal systems operating within large scale rational structures and voluntary associations as industrial, commercial, educational, political, cultural, religious or service agencies are objectively analyzed and appraised. Patterned interaction and functional configurations between and among individuals within the organization or association and between the organizations and/or associations are examined, particularly the implications of the superordinate-subordinate relationship.

Prerequisites — same as Sociology 202 or approval of Department.  
Will not be offered in 1968-69.

**305 Marriage.**

An introduction to the Sociology of the Family using a developmental framework and beginning with personality formation, pre-dating, dating, mating and courtship and ending with the engagement and wedding. Marital prediction and adjustment tests and studies are examined. Problems of the contemporary marriage in the light of rapid social change in the past and present are discussed.

Prerequisites — None  
First Term.

**306 The Family.**

An analysis of the family as a basic social institution within the structural-functional framework. Patterns of interaction between family members and between the family and other social institutions are studied. Sources of strain and tension in those relationships and the devices for the release of tension are discussed.

Prerequisites — Sociology 100 or equivalent, or 305.  
Second Term.

**307 Social Stratification.**

An examination of vertical and horizontal divisions within primitive and modern societies drawing from the classic studies of social class systems completed by sociologists and anthropologists.

Prerequisites — same as Sociology 202.

Will not be offered in 1968-69.

**308 Sociology of Religion.**

An exploration of the reciprocal influences of religion and religious behaviour on the one hand, and of culture and society on the other within a symbolic-interaction framework. A study of the social correlates of approved and disapproved religious actions receives special attention.

Prerequisites — same as Sociology 202 or approval of Department. Second Term.

**309 Mass Communication.**

The focus of this course will be on the nature of communication as a social process, the relative influence and effect of person to person and mass-media to person communication in relation to attitude formation and change, behavior, values and society in general. Particular emphasis is placed on the capacity of mass media to generate social action under varying social conditions.

Recent empirical studies are examined.

Prerequisites — same as Sociology 202 or 3rd Year standing in Communication Arts program.

**401 Social Change.**

Social change is distinguished from social dynamics early in the term. The major substantive changes of the past two centuries are analyzed as are the theories which attempt to explain them. Methods and findings of recent studies of change are critically examined as are programs of planned change and social engineering.

Prerequisites — same as Sociology 202 or the approval of the Department.

First Term.

Will not be offered in 1968-69.

**402 Political Sociology.**

Sociological and social psychological determinants of political power, political parties, voting behaviour and socio-political movements are analyzed objectively and critically. Leadership and the cycle of leadership are studied within a social-psychological framework.

Prerequisites — full standing in 3rd or 4th year arts.

Second Term.

**403 Problems in Sociology - Seminar.**

A discussion of the conceptual, methodological, theoretical and ideological problems confronting contemporary Sociology and sociologists. Some consideration is given to Sociology as an enterprise in the academic and non-academic spheres of the modern, complex and rapidly changing societies.

Prerequisites — Full fourth year standing in Sociology AND approval of Department. Normally approval will not be given to a student who has less than an overall 70% grade level in all of his post-high school studies.

First Term.

Will not be offered in 1968-69.

**404 The Sociology of Education.**

An analysis of the social relationships emerging within a formal educational system. Special emphasis will be upon teacher-student patterns in the classroom, teacher-administrator patterns within the school, plus teacher-teacher and student-student relationship within the informal network of a school. Teaching as a profession and the various sub-cultures of the student population are also examined.

Prerequisites — same as Sociology 202 or approval of the Department Chairman.

Second Term.

(Will be offered as a Full Course during the Summer School - 1968).

**451 - 452 Senior Seminar in Sociology.**

Majors in Sociology who are considering graduate study may use this seminar within which to pre-test a research design for possible use in those future studies. Others interested in teaching Sociology, or in research in some special area of Sociology may use this seminar as a launching vehicle.

Prerequisites — Departmental approval and full fourth year standing in Sociology. Also a minimum average of 70% in all previous work in Sociology.

First and/or Second Term. By special arrangement with the Department.

Not Offered in 1968-69 — Will be offered for the first time in 1969-70

**First Term Courses**

Sociology 307 Social Stratification (Half Course)

Sociology 401 Social Change (Half Course)

Sociology 403 Problems in Sociology (Seminar) (Half Course)

Sociology 451 Senior Seminar (Half Course)

**Second Term Courses**

Sociology 302 Population and Demography (Half Course)

Sociology 304 Organizations and Associations (Half Course)

Sociology 404 Sociology of Education (Offered in 1968 Summer Session)

Sociology 452 Senior Seminar (Half Course)

The Department of Sociology plans to offer an Honours Program in 1969-70.



## THEOLOGY

Rev. C. H. Henkey, Professor (Chairman)  
 Rev. E. O'Brien, S.J., Professor (Director, CTI)  
 Rev. W. Bedard, O.F.M., Associate Professor  
 Rev. G. O'Brien, S.J., Associate Professor  
 Rev. W. J. Browne, S.J., Assistant Professor  
 J. Hofbeck, Assistant Professor  
 A. Webster, Assistant Professor  
 S. Wesolowsky, Assistant Professor  
 J. Collins, Lecturer  
 P. Garnet, Lecturer  
 P. W. Jones, Lecturer  
 M. Spicer, Lecturer  
 Rabbi H. Poller, Instructor



### Courses leading to the Honours B.A. in Theology.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Classics 102 or 111 or 112 or 121 English 101 French THEOLOGY One Elective	Classics 112 or 202 or 212 or 221 French Philosophy THEOLOGY (Three Electives)	Philosophy Social Science THEOLOGY (Three Electives)	Philosophy THEOLOGY (Three Electives) One elective

### Courses leading to a B.A. with a Major in Theology.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
The same as in the Honours Theology programme	Classics 112 or 202 or 212 or 221 English French Philosophy THEOLOGY (Two Electives)	Philosophy Social Science (Two Electives) THEOLOGY (Two Electives)	Philosophy Philosophy Social Science THEOLOGY (Two Electives)

## RELIGIOUS STUDIES (non-denominational).

### 210 Image of Man. Full Course.

C. H. Henkey

The course is a religious anthropology which intends to sound and to explore the mystery of human existence in its personal, social and dynamic structure. The qualification 'religious' implies that man's ultimate rootedness and orientation towards God will be discussed.

Lectures: 3 hours per week for two terms.

### 215 Introduction to the Old Testament. Full Course.

P. Garnet

A survey of the contents of the Old Testament in the context of ancient Middle-Eastern history as revealed by archaeology and contemporary documents; literary analysis and development of religious ideas. Special attention will be given to *Judges, Isaiah and Ezekiel*.

Lectures: 3 hours per week for two terms.

### 216 Introduction to the New Testament. Full Course.

P. Garnet

The religious and cultural background of the New Testament. The tradition about Jesus: literary analysis of the gospels; the career of Jesus with special attention to his conception of Messiahship, his teaching on material earth, the Sermon on the Mount and the nature of the opposition to Jesus. The history of the church in the first century especially the work and teachings of Paul.

Lectures: 3 hours per week for two terms.

### 219 The Theology of Judaism. Full Course.

Rabbi H. L. Poller

The historical development of present day Jewish doctrines, rituals, observances, customs and practices. Beginning with Biblical origins and proceeding through all the significant events that form Jewish history and heritage, including where Judaism differs from Christianity and concluding with modern trends in Judaism.

Lectures: 3 hours per week for two terms.

### 230 Religion and Reason. Full Course.

P. Garnet

A survey of representative approaches, past and present to the problems of personal immortality, the nature of ultimate reality, religious language, the knowledge of God, the relationship of science to religion, free will and the existence of evil.

Lectures: 3 hours per week for two terms.

### 243 The Converging Traditions (Ecumenical Theology). Full Course.

P. W. Jones

Dealing with the separation of Christianity into the various major branches. A study of the historical origins of Orthodoxy, Protestantism, and Roman Catholicism. Dominant theological issues within these branches. The movement towards an eventual united Christendom. Organs of unity: The World Council of Churches, Vatican II. Major theological obstacles to unity.

Lectures: 3 hours per week for two terms.



**262 Issues in Christian Anthropology. Full Course.**

S. Wesolowsky

*An inter-disciplinary course, dealing with both anthropological and theological material, which will be a study of a number of structures of human existence and their interrelations, not only in their individual aspects, but also in their social and historical dimensions. The play, work, sexual and political elements of man's existence will be emphasized.*

Lectures: 3 hours per week for two terms.

**THEOLOGICAL STUDIES (Christian context)****GENERAL COURSES****210 Image of Man. Full Course.**

C. H. Henkey

The course is a religious anthropology which intends to sound and to explore the mystery of human existence in its personal, social and dynamic structure. The qualification 'religious' implies that man's ultimate rootedness and orientation towards God will be discussed.

Lectures: 3 hours per week for two terms.

**220 Biblical Theology. Full course.**

A. Webster

The Nature of Faith in the Old and New Testaments. A study of the act of faith from the obedient faith of Abraham to the Pauline faith working in charity, man's response to divine revelation offering him the gift of divine adoption.

Lectures: 3 hours per week for two terms.

**224 Covenant of God and Man. Full Course.**

W. Bedard

God as he manifests himself and his designs for mankind in the Sinai Covenant and its preludes. Man's response to God's design: the Covenant accepted, broken repeatedly, and renewed repeatedly. Man's response in Christ: the fulfilment of the Covenant in Christ and his members, the true People of God. The sacraments and Christian living within the Covenant.

Lectures: 3 hours per week for two terms.

**232 Theology as Salvation History. Full Course.**

M. Spicer

We will explore a theology of history that engages human creativity. The course will emphasize the uniqueness of Christianity in contrast to Idealism. Within the context of biblical Christian faith, Salvation History does not escape history but faces up to it challenging our contemporary technological society.

Lectures: 3 hours per week for two terms.

**233 Christianity. Conflict and Growth. Full Course.**

G. O'Brien

Historical, cultural, and theological currents of thought have served to shape Christianity. The course will try to uncover what contributions or deformations involved Christianity as seen in the context of the Reformation; the Rise of Modern Science, the Enlightenment. The continuing effects of these three will be examined through the thought patterns of the nineteenth and twentieth centuries.

Lectures: 3 hours per week for two terms.

**243 The Converging Traditions (Ecumenical Theology). Full Course.**

P. W. Jones

Dealing with the separation of Christianity into the various major branches. A study of the historical origins of Orthodoxy, Protestantism, and Roman Catholicism. Dominant theological issues within these branches. The movement towards an eventual united christendom. Organs of unity; The World Council of Churches, Vatican II. Major theological obstacles to unity.

Lectures: 3 hours per week for two terms.

**246 Theology of the Church. Full Course.**

W. Browne

A study of the meaning of the Church from its foundation, as seen especially in the Gospel of Matthew, and the Epistle to the Ephesians, to the most complete reflection of the Church on her own nature in Vatican II's Constitution on the Church.

Lectures: 3 hours per week for two terms.

**253 Towards a Theology of our Body. Full Course.**

J. Hofbeck

Every theology, more or less consciously, is based on a certain understanding of our body. Following the historical evolution of this understanding we will reconsider the main points of our Christian theology. Conversely, this critical discussion will lead to a genuine *Christian* interpretation of our body.

Lectures: 3 hours per week for two terms.

**256 Introduction to Theological Ethics. Full Course.**

B. Somfai

Facing the challenge of secularism, the course intends to highlight the fundamentals of Theological Ethics. First it includes a historical, philosophical and biblical analysis of the moral experience. Then it proceeds in explaining the fundamental principles of Christian moral life as they derive from our vocation in Christ.

Lectures: 3 hours per week for two terms.

**262 Issues in Christian Anthropology. Full Course.**

S. Wesolowsky

An inter-disciplinary course, dealing with both anthropological and theological material, which will be a study of a number of structures of human existence and their interrelations, not only in their individual aspects, but also in their social and historical dimensions. The play, work, sexual and political elements of man's existence will be emphasized.

Lectures: 3 hours per week for two terms.

**271 Doctrinal Re-statements in Vatican II. Half Course.**

W. Bedard

Unlike earlier councils, Vatican II did not define dogmas but formulated traditional doctrines in new contexts and with new emphases. The documents of Vatican II will be read for the theological significance and challenge of this new presentation of the Church's heritage.

Lectures: 3 hours per week for the first term.

**SPECIAL COURSES (Prerequisite: the successful completion of a General Course).**

**302 Theology of the Woman. Full Course.**

C.H. Henkey

In the modern secular thought which is not all wrong christology becomes anthropology. Consequently Mariology then should turn into an investigation of the mystery of womanhood, which certainly is not rooted in sexuality, but of which the sexual aspect is only a partial and imperfect expression.

Lectures: 3 hours per week for two terms.

**303 The Johannine Writings. Full Course.**

E. O'Brien

The whole Johannine corpus, *Gospel*, *Letters* and *Apocalypse* will be interpreted in the context of first century theology.

Lectures: 3 hours per week for two terms.

**314 Theology of Symbolism. Full Course.**

W. Browne

A study of man's ritual self-expression as seen in its elementary forms in the primitive religions, in its more elaborated forms in the practices of the Hindus, Buddhists, Muslims, and in its full development in Christian sacramentalism.

Lectures: 3 hours per week for two terms.

**315 Theology of Religions. Full Course.**

G. O'Brien

A consideration of the basic religious attitudes and postures of primitive man and of the nature and role of religion in his life. An attempt will be made to assess the contribution of the religion of primitive man to certain historical religions.

Lectures: 3 hours per week for two terms.

**316 The Encounter between Christianity and Eastern Religions: failure and promise. Full Course.**

G. O'Brien

A descriptive analysis of the elements that constitute Christianity and Hinduism and Buddhism. An historical and theological investigation will seek to analyze the reasons for the past inadequacies and limited achievements in reciprocal understanding.

Lectures: 3 hours per week for two terms.

**318 Newman. Full Course.**

A. Webster

The continuing relevance of Newman as studied through his writings. This study will lead into an exploration of the contemporary issues on 1) Modernism, 2) The relation between faith and reason, 3) The development of Christian doctrine.

Lectures: 3 hours per week for two terms.

**321 Modern Aspects of Biblical Theology. Full Course.**

A. Webster

The unity of the Old and the New Testaments continues to be a constant challenge to Christian theology. A discussion of some of the problems involved in clarifying how the two Testaments are to be considered with respect to each other.

Lectures: 3 hours per week for two terms.

**322 The Prophets. Half Course.**

W. Browne

Two Major and two minor prophets will be examined on three levels.

The first level: the original meaning of the prophets' message.

The second: the fulfillment of the prophecies in the life of Christ.

The third: the relevance of the prophecies to modern man.

Lectures: 3 hours per week for one term.

**323 Theology of the Psalms. Half Course.**

W. Browne

The Psalter is a unique collection of prayers bringing together all the spiritual aspirations of man in his search for God. We shall study the Psalms in their historical setting, their structure and significance, with special emphasis on the Passover and Paschal Mystery.

Lectures: 3 hours per week for one term.

**325 The Reality of God. Half Course.**

W. Bedard

Certain images of God are being questioned as remote from a scientific age, or an urbanized society, or an anguished world. Correspondingly, there is an new interest in "the compassionate Christ." The course will evaluate these trends in the light of God's self-revelation that culminated in Christ.

Lectures: 3 hours per week for the first term.



**327 The Reality of Grace. Half Course.** W. Bedard

The Scriptural data. Its understanding by the Fathers and Councils.  
The insights of theologians. Grace in the documents of Vatican II.  
Lectures: 3 hours per week for the second term.

**338 Marriage. Full Course.** J. Collins

An historical and sacramental approach with an awareness of the contributions other sciences make to the understanding of the human reality of marriage, e.g., medicine, sociology, psychology, and philosophy. The human actions of married people are essential to the sacramental reality of Christ's presence in the world through the incarnation of his love and revelation of himself in the sacrament of matrimony. The course will be concerned with deepening our understanding of the mystery of love which is Christian marriage along with and investigation of the challenges facing those preparing for and beginning married life.

Lectures: 3 hours per week for two terms.

**341 Son of Man and Son of God. Full Course.** P. W. Jones

A Biblical, Historical, and Theological investigation into the central mystery of the Christ. The Incarnation and its implications. The significance and recurrence of the early heresies. Christ in the Eastern, Roman, and Protestant traditions. The re-currence of the Christ figure in current literature and film.

Lectures: 3 hours per week for two terms.

**345 The Problem of Evil. Full Course.** S. Wesolowsky

An exploratory course that will treat the problem of evil both historically and thematically: historically, by considering occurrences of various modes of speaking about evil, thematically, by considering the methodological issue involved in the legitimacy, relevance and dynamics of such an inquiry.

Lectures: 3 hours per week for two terms.

**347 Seminar on H.U.v. Balthasar. Full Course.** S. Wesolowsky

A methodological inquiry into some of the many achievements of one of the greatest theologians of this century. Of special interest will be his contributions in the field of patristics, his theologies of dialogue with Judaism and with Protestantism, and his recent work toward a theology of beauty.

Lectures: 3 hours per week for two terms.

**348 Seminar on Teilhard de Chardin. Full Course.**

C. H. Henkey

Teilhard de Chardin's genius was the first to achieve an integration between christian theological thinking and modern scientific world-view, by coordinating evolution, history and salvation history into one line of ascending evolution towards the point Omega. The purpose of our study is to translate the insights of Teilhard's prophetic and poetic vision into a more objective language of systematic theology.

Lectures: 3 hours per week for two terms.

**349 Seminar on KARL RAHNER.**

J. Hofbeck

The work of Karl Rahner, one of the most influential theologians at the present time, consists almost exclusively of short essays on different topics. Studying his easiest writings we will concentrate our attention on the *method* of Karl Rahner in order to learn with him how to face intellectually, as Christians, the problems of a changing world.

Lectures: 3 hours per week for two terms.

**352 Nineteenth Century Criticism of Christianity. Full Course.**

M. Spicer

The historical building up of the critical approach to religion and in particular to Christianity up to Hegel; and the explosion encountered by Christianity coming from writers such as, Schleiermacher, Feuerbach, Marx, Kierkegaard, Nietzsche, and Darwin.

Lectures: 3 hours per week for two terms.

**356 Theology and Philosophy. Full Course.**

J. Hofbeck

*An inter-disciplinary course* dealing with the following problems: How can a good philosopher also be a good Christian? And why must a good theologian be a good philosopher at the same time? A view of the more or less dramatic encounter of both disciplines during the history of our western civilisation will show us the present character of this problem. An attempt will be made to give an answer to this question in the wider context of the relationship between nature and grace.

Lectures: 3 hours per week for two terms.

**358 Prayer in Contemporary Theology. Half Course.**

W. Bedard

A new thirst for inner religious experience is being felt today after the one-sided stress placed by the radical theologians upon social mission and involvement. Against this background, the course offers exploratory readings in Guardini, Rahner, Bruckberger, Nédoncelle, Urs von Balthasar, Daniélou, and others. Their theological principles on prayer will be used to evaluate a number of more popular current authors.

Lectures: 3 hours per week for the second term.



**371 Psychology and Religion. Full Course.** M. Spicer

*An inter-disciplinary course* dealing with a more relevant Christian description of the human condition in view of research in psychology and psychiatry since Freud. From a theological perspective we will examine recent non-Freudian insights into the human structure coming from such writers as, Allport, Rogers, Maslow, and May.

Lectures: 3 hours per week for two terms.

**ADVANCED COURSES**

(Individually directed research for honours, majors and advanced students who have passed one of the general courses. Acceptance by respective Professor and clearance with Chairman is mandatory.)

**412 Religious Language. Full Course.** S. Wesolowsky

A study of religious and theological language in relation to scientific, philosophical and poetic forms of human self expression.

**416 Selected questions in Contemporary Theology. Full Course.** E. O'Brien

Reading and research in the writing of Jürgen Moltmann, Harvey Cox, Johann Metz.

**421 Theology and Politics. Full Course.** A. Webster

A study of the historical reciprocity between political structures and the theological expressions of man's social and political existence.

**426 Theology of Acts and the Pauline Epistles. Full Course.** W. Bedard

*A colloquium.* The Acts of the Apostles will be used as background to show how Paul's theology, while rooted in revelation, developed from actual situations.

**436 The Future Shape of Christianity. Full Course.** P. W. Jones

The rôle of tradition in shaping the future of the christian message and community. The christian church as avant-garde in society. The christian diaspora and its implications. Gropings after the christian ideal in modern novels and films. Christianity and atheism.

**446 Neoplatonism in Medieval Theology. Full Course.** M. Spicer

A research tracing the unfolding of the Neoplatonic thought from the Greek period to the late Middle Ages. The course will also be a reconsideration of the theological import of Neoplatonism.

**450 Comparative Religion. Full Course.** G. O'Brien

A more comprehensive and "in depth" study of aspects treated in more summary fashion in the lectures of Theology 315 and Theology 316.

**452 Modern Ecclesiological Problems. Full Course.** G. O'Brien

The tutorial will concern itself with guided research in one or more of the areas treated in Theology 233.

**453 Theology and Literature. Full Course.** G. O'Brien

Individual or group investigation into the theological dimensions of the human problems facing man as seen in the context of modern literature.

**455 Catholicism in North American Society (History 321). Full Course.** D. O'Brien

A seminar bringing together faculty and students from several departments to examine a number of problems in North American Catholicism from the perspectives of history, sociology, philosophy and theology.

## SCHOLARSHIPS, BURSARIES AND AWARDS

### Scholarships

A scholarship is an award granted annually to a student for academic excellence, which may be renewed if the student maintains an above average (70% overall average) academic standing.

The students will not receive cash unless otherwise stated, but their tuition fees will be fully or partly paid by the scholarships and only the remainder by the students themselves, depending on the value of the scholarships awarded.

The value of Endowed Scholarships may fluctuate depending on the current interest rates. Apart from Entrance Scholarships, candidates for scholarships must have completed at least one year at Loyola College, these students will not have to apply for scholarships, they will be awarded according to their marks and openings available.

No student will be considered eligible for a scholarship who has failed any year in his college or university education. Consideration will, however, be given to the student who has obtained more than a 70% average in each of the two years following the year repeated, e.g., a student who fails in Freshman may be eligible only in his Senior year; a student who fails in Sophomore, Junior, or Senior will not be eligible.

No student with supplemental examinations will be eligible for a scholarship, or if he already holds a scholarship, for its renewal.

For renewal of a scholarship, the student holding the scholarship must obtain an overall average of 70% or more for the current academic year, and must have passed all his final examinations in the courses in which he is registered.

If a student holding a scholarship decides to change faculty he will retain the scholarship only on condition that he receives the approval of the Scholarship Committee.

No student may hold more than one scholarship from the College at any one time.

### A. Endowed Scholarships

#### THE LILLY F. BARRY SCHOLARSHIPS

3 — Value: Full Tuition.

THE URSULA CARLING SCHOLARSHIPS: These are an endowment from the estate of the late Mrs. Ursula Carling.

2 — Value: \$250. each.

#### THE CLORAN MEMORIAL SCHOLARSHIP

Value: \$80.

#### THE COLLINS-HEFFERNAN SCHOLARSHIP.

Funds from the Mary Ellen Heffernan Bursary and from the Nelson Collins Scholarship.

Value: \$200.

#### THE CUDDY-STANFORD MEMORIAL SCHOLARSHIP.

Funds from the John M. Cuddy Scholarship and from the Stanford Memorial Scholarship.

Value: \$200.

#### THE DOWLING-MORIARTY SCHOLARSHIP.

Funds from the estate of the late Francis J. Dowling and of the late Mrs. E. Stowell, widow of John Moriarty.

Value: \$200.

#### THE MRS. F. J. DUCKETT SCHOLARSHIP.

From the Estate of the late Mrs. F. J. Duckett.

Value: \$200.

#### THE FRIENDS OF LOYOLA SCHOLARSHIP.

From the funds endowed for the James Corcoran Scholarship, the Rev. William Doherty Scholarship, the Dollard Scholarship, and the Gregory O'Bryan Scholarship, and from funds given by the Student's Penny Scholarship.

Value: \$200.



**THE ARTHUR HALLEY MEMORIAL SCHOLARSHIP.**

Endowment from P. F. Halley of St. John's Newfoundland in memory of his son, Arthur, a graduate of the Pre-Medical class of 1946, magna cum laude, who died on the eve of Convocation.

Value: \$100.

**THE MR. AND MRS. THOMAS WILLIAM KAVANAUGH MEMORIAL SCHOLARSHIP.**

Donated by the Rev. Thomas W. Kavanaugh.

Value: \$120.

**THE LOYOLA SODALITY SCHOLARSHIP.** Funds from the Sodality Scholarship and from the Loyola Scholarship Club Association Bursary.

Value: \$200.

**THE MAHONEY-MURPHY MEMORIAL SCHOLARSHIP.** Originally established as the Mother Ellen Memorial Scholarship, and as the John Walsh Murphy Memorial Scholarship.

Value: \$200.

**THE KENNETH J. McARDLE MEMORIAL SCHOLARSHIP.** Donated by Mrs. Mary McArdle as a tribute to the memory of her late husband Kenneth J. McArdle.

Value: \$125.

**THE ST. IGNATIUS PARISH SCHOLARSHIP.** Money collected and presented to the St. Ignatius Men's Association and originally known as the Coronation Arts Courses Scholarship.

Value: \$100.

**THE SHARP-O'REILLY SCHOLARSHIP.** Funds from the Alice M. Sharp Scholarship and from the Winnifred O'Reilly Memorial Bursary.

Value: \$200.

**B. Gifts by the College**

**LOYOLA COLLEGE SCHOLARSHIPS.** Entrance Scholarships are awarded by the Scholarship Committee to students entering Loyola College from Grades XI and

**XII.** These Scholarships cover full tuition fees, and are automatically renewable from year to year until the student obtains his degree as long as the student performs satisfactorily. A Student's performance is judged satisfactory if a student passes every course without supplemental examinations, and obtains an overall average of at least 70% in each year at Loyola College. These Scholarships will be awarded on the basis of the principal's recommendation and the candidate's High School record. Applications must be forwarded to Loyola College, Director, Financial Aid, PRIOR TO MARCH 15th.

**SUSAN LANGLEY SCHOLARSHIPS.** Endowed scholarship established by Mr. and Mrs. M. J. McCormick in memory of the late Susan Langley; offered to Freshmen with high Academic standing in their four years of High School, but who do not qualify for Loyola Entrance Scholarships. Non-renewable.

2 — Value \$250, each.

**SECOND YEAR**

**ARTS,** Number: 9. Value: Full Tuition

**COMMERCE,** Number: 3. Value: Full Tuition.

**SCIENCE,** Number: 16. Value: Full Tuition.

**ENGINEERING,** Number: 3. Value: Full Tuition.

**THIRD YEAR**

**ARTS,** Number: 14. Value: Full Tuition.

**COMMERCE,** Number: 2. Value: Full Tuition.

**SCIENCE,** Number: 10. Value: Full Tuition.

**ENGINEERING,** Number: 5. Value: Full Tuition.

**FOURTH YEAR**

**ARTS,** Number: 12. Value: Full Tuition.

**COMMERCE,** Number: 1. Value: Full Tuition.

**SCIENCE,** Number: 15. Value: Full Tuition.

**ENGINEERING,** Number: 3. Value: Full Tuition.

**THE BARTLETT-DOHERTY MEMORIAL SCHOLARSHIP.** Value: \$80.

**THE GASSON MEMORIAL SCHOLARSHIP.**

Value: \$200.

**THE JONES MEMORIAL SCHOLARSHIP.**

Value: \$200.

**THE McCARTHY MEMORIAL SCHOLARSHIP.**

Value: \$200.

**THE McMAHON MEMORIAL SCHOLARSHIP.**

Value: \$160.

**THE O'BRYAN MEMORIAL SCHOLARSHIP.**

Value: \$200.

**THE O'DOWD MEMORIAL SCHOLARSHIP,**

Value: \$200.

**THE PRESIDENT'S SCHOLARSHIPS. Number 3.**

Value: One, \$160; two, \$150 each.

**THE J. S. O'NEIL SCHOLARSHIP. Value: \$150.**

Donated by J. S. O'Neil.

**C. Annual gift scholarships****THE CHARLES BROWN MEMORIAL SCHOLARSHIP.** Value: \$50.**THE MRS. CHARLES BROWN SCHOLARSHIPS.** Number: Two. Value: \$100, each. Open to students entering Third Commerce.**THE GUTELIUS MEMORIAL SCHOLARSHIP.** Value: \$100. Open to students entering Fourth Commerce.**THE KNIGHTS OF COLUMBUS COUNCIL 284 SCHOLARSHIP.** Value: \$150.**THE STATE COUNCIL, KNIGHTS OF COLUMBUS, PROVINCE OF QUEBEC SCHOLARSHIP.** Value: \$100.**Bursaries**

A Bursary is a sum of money given to a student in order to assist him financially in the continuation of his studies.

A Bursary will take the form of a credit made to the student's tuition account. Ordinarily bursaries will not be awarded to students with less than a 50% overall average.

Students desiring bursaries must make written application to: Director, Financial Aid, Loyola College, Montreal 28.

Applications for Bursaries must be made as early as possible after Registration.

**Province of Quebec**

The Province of Quebec has an extensive programme of Student Loans and Bursaries available to students who are domiciled and have resided in Quebec for at least a year. Foreign students with landed immigrant status, and who have proved their intention to remain in the country after obtaining their degree are eligible if they have been living here for a year or more. For application forms the student must write direct to:

Department of Education,  
Student Aid Service,  
Parliament Buildings,  
Quebec 4, Que.

and ask for an official application form. The student then fills in the form, has it signed by his parents and has it stamped and verified at the Financial Aid Office. This is then sent to Quebec by REGISTERED MAIL. It MUST arrive there before the 30th of September.

**THE ST. PATRICK'S SOCIETY BURSARY.** Number: two. Value: \$200. Awarded annually by the St. Patrick's Society of Montreal, preferably to a Fourth Year Student, in any faculty, who is Irish or of Irish extraction. Application forms may be obtained at the office of the Director, Financial Aid. Closing date is December 20.

**THE TOUCHE, ROSS, BAILEY AND SMART BURSARY.** Number: one. Value: \$200. "The Bursary . . . will be awarded annually to a student who is completing his third year and will be entering his final year, majoring in Accountancy in the Faculty of Commerce, and who intends on graduation to pursue the qualifica-



tion of Chartered Accountant. The award will be made on the basis of academic record, ability, personality and other suitable characteristics . . .".

**THE BIRKS FAMILY FOUNDATION BURSARIES.** A limited number of bursaries are available under this plan. The student's financial need and academic standing will be considered in the granting of these bursaries. Apply to the Director of Financial Aid.

**SOCIETE ST. JEAN BAPTISTE: Le Prêt d'Honneur.** Le Prêt d'Honneur offers a loan plan to students during 12 months of the year. Requests for applications should be made to the Director of Financial Aid.

**NATIONAL COUNCIL OF JEWISH WOMEN OF CANADA MONTREAL SECTION, BURSARIES.** A limited number of bursaries are awarded by the Council upon the recommendation of the Financial Aid Director. Academic standing and Financial need are considered in making the award. Although there is no legal obligation, the Council hopes that the holders will, if possible, return the money at some future time, so that other students may be helped by the College. Apply to the Director of Financial Aid.

**THE LOYOLA ALUMNI STUDENT LOAN FUND.** The Loan Fund exists to aid students who are in financial difficulties. Because of limited resources, the trustees of the Fund normally will consider loans to students who: 1) have been successful in their last set of final examinations at Loyola; 2) are receiving a bursary from the Province of Quebec; and 3) are prepared to repay the loan by the end of the summer.

Applications should be made in writing to: Loyola Alumni Student Loan Fund, Loyola College, 7141 Sherbrooke Street West, Montreal 28, before DECEMBER 1.

**B'NAI B'RITH HILLEL FOUNDATION.** A limited number of bursaries are available. Amount of each bursary granted from this fund may vary according to the need of any deserving student in any year or faculty, without regard to race, religion or nationality. Apply to Director, Financial Aid.

**MR. AND MRS. MEIER SEGALS BURSARIES:** A number of bursaries are available, through their generosity, to needy students with good academic standing. Apply, Director, Financial Aid.

**THE LOAN FUND OF THE LOYOLA STUDENT ASSOCIATION.** This fund was established with a view to aiding students who are in dire financial need. Further details may be obtained at the temporary Student Center Building.

### **Commonwealth Scholarships**

Under a Plan worked out at the Commonwealth Education Conference at Oxford in 1959 responsibility is shared between the Canadian Commonwealth Scholarship and Fellowship Committee and the External Aid Office to enable an increased number of abler students to share in the wide range of educational resources available through the Commonwealth. An undergraduate award is made for the period required to enable the student to obtain his degree. For information consult The Canadian Commonwealth Scholarship and Fellowship Committee c/o Association of Universities and Colleges of Canada; or The Director General, External Aid Office. Both at 151 Slater St., Ottawa, 4, Ont.

**CHILDREN OF WAR DEAD (EDUCATION ASSISTANCE) ACT.** This Act provides assistance towards an education beyond secondary school level for sons and daughters of veterans whose deaths resulted from military service during World War I, World War II, or the Korean War. If the application is approved, the Department of Veterans Affairs will pay: a) to each student an allowance of \$25 per month for the period during which he or she is attending a full-time course, up to a maximum of 36 months; b) to the University, tuition fees and other costs as described in the Act, up to a maximum of \$500 per academic year. Apply to the Department of Veterans Affairs.

### **Awards**

**GOVERNOR-GENERAL'S MEDAL.** Presented by His Excellency the Governor General of Canada to the student with the highest overall average in the four years of Arts.

**THE MINISTER OF EDUCATION'S SILVER MEDAL.** Presented by the Department of Education, Government of Quebec, to the student with the highest overall average in the four years of Science.

**THE MINISTER OF EDUCATION'S SILVER MEDAL.** Presented by the Department of Education, Government of Quebec, to the student with the highest overall average in the four years of Commerce.

**THE LOYOLA C.O.T.C. MEDAL.** Presented by the Loyola College C.O.T.C. to the most representative Loyola student among the graduates.

**THE PHILOSOPHY GOLD MEDAL AWARD.** Presented by Loyola College to the outstanding student in Philosophy among the graduates, and awarded upon the recommendations of the Philosophy professors.

**THE HAMILTON WATCH AWARD.** Presented by the Hamilton Watch Company to the student who has most successfully combined proficiency in Accounting with achievement, either academic, extra-curricular, or a combination of both in the social sciences or humanities.

**THE HAMILTON WATCH AWARD.** Presented by the Hamilton Watch Company to the student who has most successfully combined proficiency in Mathematics with achievement, either academic, extra-curricular, or a combination of both, in the social sciences or humanities.

**THE SOCIETY OF CHEMICAL INDUSTRY, CANADIAN SECTION, MERIT AWARD.** Presented by the Society of Chemical Industry to the Highest ranking (minimum 75%) student in the fourth year, majoring in Chemistry, Chemistry-Physics, or Chemistry-Mathematics, and who has completed the course in the normal number of years.

#### Prizes

**THE WILLIAM H. ATHERTON PRIZE.** Donated by the late Dr. William H. Atherton, and to be awarded to the student outstanding for research in Canadian History.

**THE LOYOLA PRIZE FOR MATHEMATICS.** Donated by Dr. Isaiah S. Benjamin of Montreal to the student graduating in Science or Engineering with the highest four year average in Mathematics subjects.

**THE CAE PRIZE FOR ENGINEERING.** Donated by CAE Industries Ltd. to a graduating student with the highest four year average in the Engineering subjects.

**THE CHEMCELL LIMITED PRIZE FOR CHEMISTRY.** Donated by Chemcell Limited and awarded to the graduating student with the highest four year average in Chemistry subjects.

**THE CHEMCELL LIMITED PRIZE FOR ENGLISH.** Donated by Chemcell Limited and awarded to the graduating student in the Arts programme, taking a Major or an Honours in English, with the highest four year average in English subjects.

**THE ECONOMICS PRIZE.** Granted by the College to the graduating student in Arts or Commerce, taking a Major or an Honours in Economics, with the Highest four year average in Economics subjects.

**THE FRENCH LANGUAGE PRIZES.** Donated by the Government of France.

**THE GERMAN LANGUAGE PRIZE.** Donated by the Consulate General of the Federal Republic of Germany to the student who has shown the greatest progress in the German Language course offered at Loyola College.

**MONTREAL ECONOMIC ASSOCIATION PRIZE.** Donated by the Montreal Economic Association to the third year student taking an Honour or Major in Economics with highest three year average in his economics courses.

**THE KNIGHTS OF COLUMBUS PRIZE FOR CANADIAN HISTORY.** Donated by the Knights of Columbus of the Province of Quebec and awarded to the student who has obtained the highest mark in Canadian History during the current academic year.

**THE PHYSICS PRIZE.** Granted by the College to the graduating student in Physics with the highest four year average in Physics subjects.

**THE DR. JACQUES SMITH MEMORIAL PRIZE.** Donated by Dr. Kurt Ekler in memory of Dr. Jacques Smith, chief of surgery at the Hotel Dieu Hospital, St. Jerome, and a graduate of Loyola, who died suddenly



in 1960 at the age of thirty six. Awarded to the graduating student with the highest four-year aggregate standing in the Biology-Chemistry course. (Science or Arts).

**THE MRS. ALFRED THIBAudeau PRIZE FOR POLITICAL SCIENCE.** Donated by Miss Madeleine Thibaudeau in memory of her mother, Madame Alfred Thibaudeau, and to be awarded to the graduating student with the second highest average in the field of Political Science.

**THE MRS. RENEE VAUTELET PRIZE FOR POLITICAL SCIENCE.** Donated by Mrs. Renée Vautelet and to be awarded to the graduating student with the highest average in the field of Political Science.

**THE CHEMICAL INSTITUTE OF CANADA PRIZE.** Donated by The Chemical Institute of Canada to the third year student taking an Honour in Chemistry with the highest average in his year.

**THE PIERRE DESMARAIS PRIZE.** Donated by Pierre DesMarais to the Student who has distinguished himself, during his last year, for his contribution to non-academic activities.

**THE MICHAEL WATSON MEMORIAL PRIZE:** Donated by the Board of Governors of Loyola College to honour the memory of Michael Watson, an outstanding, capable and popular member of the class of 1967 who met his death in a construction accident at the end of his third year college. To be awarded to the student, who, in the judgement of the department, has shown academic superiority in the study of Biology.

## DIVISION OF STUDENT SERVICES

While the College gives emphasis to formal learning through instruction and study in an enriched curriculum, it clearly recognizes that, in the complete education of the whole person, the student has many other needs — religious, personal, athletic, social — for which it must make provision. To serve these needs the College offers a broad programme of student services. Within the framework of this non-instructional but nevertheless truly educational sphere of college life, the student has ready access to educational, spiritual, and vocational guidance.

The Student Services programme complements the student's formal learning process by providing such educational experiences as are not ordinarily found in the laboratory and the lecture hall.

Within the Division of Student Services are included the Dean of Students, the Dean of Men and Assistant Dean of Men, Dean of Women, Director of Women's Housing, Chaplain, Director of Physical Education and Athletics, Director of Financial Aid, Director of Men's Housing, Director of Career Planning and Placement, Director of Health Services.

**THE DEAN OF STUDENTS** is responsible for the supervision and coordination of those phases of student life and activity which are not instructional.

**THE DEAN OF MEN**, in the absence of the Dean of Students, supervises the Division of Student Services. He has responsibility for the Health Services, Men's Housing and he acts as College liaison officer with the Career Planning and Placement Service. The Dean of Men serves as an advisor and administrative liaison officer with student government. He works with Student Senate in the adjudication of cases involving student violations of college policy. Finally, he advises student organizations and is available to assist students in whatever capacity may be required.

**THE ASSISTANT DEAN OF MEN** helps the Dean of Men in disciplinary matters, and acts as advisor to the Evening Student Council; as advisor to fraternities

and the Interfraternity Council; as advisor to Maroon and White Honor Society; as advisor to the Science Student Council and the Engineering Student Council, with the respective deans of those faculties. He serves on a number of college life committees.

**THE DEAN OF WOMEN** acts as advisor to the Loyola Women Students Association and all other women's organizations on campus. She is available to all students for personal counselling and advising and strives to assist women students whenever possible.

She is directly concerned with the establishment of policy and procedure regarding on and off campus housing for women, and acts as the chief administrative officer in this area. Through the promotion of lectures and guest speakers she endeavours to present programmes of value and interest to women students. Her role as disciplinarian is centered around the educational value of responsible student action. She is a member of the college committees pertaining to student life.

**THE CHAPLAIN** is responsible for conducting the religious activities that are part of the University programme. He is also a student counsellor and co-ordinator of those who are engaged in religious counselling.

**THE DIRECTOR OF PHYSICAL EDUCATION AND ATHLETICS** is responsible for college, intercollegiate and intramural programmes, as well as non-credit programmes of an instructional nature in physical education and recreation.

**THE DIRECTOR OF FINANCIAL AID** is responsible for all loan and bursary applications. In addition all Scholarship applications must be made through his office in his capacity as Executive Secretary of the Scholarship Committee. All students with financial problems should apply for advice and aid through his office. Student Insurance problems as well as Foreign Student insurance are handled by this department. It is his responsibility to verify financial position of all foreign candidates for admission. He also acts as co-ordinator for all gifts and prizes for Convocation.

**THE DIRECTOR OF MEN'S HOUSING** is responsible for all on and off campus men's student housing. He should be contacted by students who desire information with regard to all off campus men's housing. In his responsibilities for on campus housing, the Director of Men's Housing serves as advisor to the Residence Administrative Council, and is available to provide assistance to all resident students in matters which they wish to bring to him.

**THE DIRECTOR OF CAREER PLANNING AND PLACEMENT SERVICES** has available information regarding career, summer and part-time employment. The Placement Service is operated by Canada Manpower Service.

**THE DIRECTOR OF HEALTH SERVICES** is responsible for the Health Services programme at the college.

**THE HEALTH SERVICE**, organized in 1966, strives to maintain the state of health, both physical and mental, required to live a full student life in the University community. Staff is a full-time nurse, a part-time physician, and a part-time psychiatrist. Should hospitalization be necessary, this is arranged in a community hospital.

The aim of the student Health Service is prevention of illness and maintenance of good health. With these objectives in mind a compulsory medical examination is required of all freshmen on initial enrollment at the college prior to registration. Annual chest X-Rays will be performed on all students at registration. Health information and education are offered in the form of health lectures and seminars.

**AN ACCIDENT INSURANCE PLAN** giving protection against medical bills incurred as a result of an accident on or off campus, 24 hours a day and 12 months a year, has been initiated by a motion passed in the Lower House of Loyola of Montreal Students' Association on February 23, 1967. Participation in this insurance is a requirement of registration. Those who wish to add sickness to their Accident Policy should consult the Office of the Director of Financial Aid.



**COLLEGE RULES AND REGULATIONS.** College policies designed to control student conduct are made for the sole purpose of guaranteeing that each member of the academic community has the right to study protected from those who are motivated otherwise.

The responsibility for the adjudication of cases involving the violation of college policies is vested in the Dean of Students and his assistants, the Dean of Women and the Dean of Men, who investigate any instances involving misconduct. They, in turn, may refer cases to the Student Senate. Penalties for breach of College policy may range from reprimand to dismissal from the College.

Respect for college policy requires that each student assume responsibility for his actions, respect constituted authority, protect both private and public property and conduct himself at all times in a lawful manner. This clearly implies that the rights of others are to be respected.

Your attention is invited to the fact that registration at the College involves the students' acceptance of not only the published academic regulations, but also all rules found in any official announcement.

**STUDENT HANDBOOK** The Student Handbook published each year is distributed to all students at registration in September. Students are held responsible for knowing and observing the policies contained therein. The Handbook, contains a wealth of information which serves as a handy reference for students and faculty alike.

## PHYSICAL EDUCATION AND ATHLETICS

Loyola College boasts one of the most complete and diversified college athletic and physical education programmes of its type in Canada. This programme operates as an integrated segment of the school's total curriculum aiming to promote a high degree of physical fitness and mental alertness amongst the entire student body.

Thirty-two activities are offered under the supervision of a full-time staff of professionally trained coaches encompassing all popular and individual sports for male and female students; archery, badminton, basketball, bobsledding, body building, bowling, boxing, broomball, cheerleading, cross-country, curling, fencing, field hockey, figure skating, football, golf, gymnastics, hockey, judo, karate, modern dance, parachuting, physical fitness, sailing, skiing, soccer, swimming and diving, table tennis, track & field, volleyball, weight-lifting and wrestling. In major areas of interest there are four different levels of play and instruction; intercollegiate varsity, intercollegiate junior varsity, intramural, and physical education classes. Loyola varsity squads successfully compete against other top ranked Canadian and regional United States University teams.

The south campus is the focal point of the College's Physical Education and Athletic Programme including full length playing fields for outdoor activities and a new three million dollar physical education centre. Within the confines of the centre are found modern facilities for men and women, featuring an ice-skating arena and a spacious gymnasium able to accommodate 3,000 and 1,500 spectators respectively, a first aid station, administrative offices, numerous dressing rooms, a wrestling and judo room, a completely equipped weight training room, equipment storage rooms, a sports store, lecture hall, food and soft drink outlets, a snack bar, a press box and a physiotherapy clinic. The Loyola Sports Hall of Fame is temporarily housed in the main lobby.

## RELIGIOUS ACTIVITIES

In order to make concrete and personal the religious truths, which the students have studied in the Theology courses, Loyola College offers a programme of religious activities calculated to nourish and deepen their personal and apostolic dedication.

**DAILY MASSES** Two student Masses are offered daily Monday to Friday at 12:05 p.m. and 1:05 p.m. in the College Chapel. Confessors are available during the Masses. In Hingston Hall Mass is offered daily at 8:00 a.m.

**SUNDAY MASS** A University Community Mass is celebrated each Sunday at 11:15 a.m. in the College Chapel. Students and Faculty are invited to attend.

**LOYOLA CHRISTIAN STUDENTS ASSOCIATION** This organization, formerly the Sodality of Our Lady, exists for those students who have a more than passing concern for living their faith. Within the LCSA these students find opportunity to join in group discussion on those religious problems and topics which currently affect their lives.

**WEEKEND RETREATS** Retreats as well as Religion and Life Study Days are scheduled each year. A special retreat is offered to the Senior Students. Dates and location of the Retreats and Study Days will be announced.

**CHAPLAIN — COUNSELLORS** Two Chaplains are available at all times for religious and personal counselling.

## JOHN XXIII DIOCESAN STUDENT CENTER

Sponsored by the Archdiocese of Montreal as an information Center on the various Apostolic Works and projects available to Young People. Also counselling and guidance with reference to Religious Vocations to the

Priesthood. Visitors welcome to Lounge, Reading Room, and daily Mass in the house Chapel.

Address: 3500 Belmore Ave.,

Phone: 489-6285

Student's Phone: 482-7397

Director: Rev. D. McCormack.

Associate Director: Rev. E. Schibli.

## STUDENT GOVERNMENT

The Loyola of Montreal Students' Association is the incorporated governing body of the Student Association, of which all full-time day students are members.

Its general purpose is to: a) form a representative association to promote the educational, social and cultural interests of its members; b) form a representative association to promote the general welfare of its members; c) co-operate with other organizations, whether incorporated or not, having similar interests in promoting student activities.

The LMSA is composed of three elements: the Executive, the Board of Directors, (legislative body), and the Senate (judicial body).

A Student Activity Fee, collected from day students at registration, finances the LMSA.

### The Executive

The President, Vice-President for Internal Affairs, Vice-President for External Affairs, Vice-President for Educational Affairs, Secretary and Treasurer form the Executive of the LMSA. The President and Vice-President for Internal Affairs are elected annually on a ticket basis, and it is they who appoint the other four members of the Executive.



The Executive forms the core of the Executive Council, which is also composed of: Dean of Men, Athletic Association President, Resident Administrative Council President, News Editor-in-Chief, Inter-Fraternity Council President, International Students' President, Women's Association President, Faculty Presidents' Representative, and External P. R. Chairman.

The task of the Council is to advise the Executive with regards to the many problems encountered in the policy and decision-making of the Student Association.

### **The Senate**

The judicial body of the LMSA, the Senate, is composed of seven members elected by the Board of Directors from a slate prepared by the outgoing Senate.

Only students in third or fourth years are eligible for election, and there must be at least three members from each of these years.

The Senate is the body in the LMSA which has judicial jurisdiction over any matters affecting either student discipline or constitutional interpretation. Should an organization or student dishonour or damage the reputation of the Students Association or the College, or violate any regulations of the University Community, in any way or in/at any activity sponsored by the LMSA, the Senate has the power to fine those concerned; or suspend, or even expel them from the Student Association.

### **The Board of Directors**

The Board of Directors is the legislative body of the LMSA. Sixteen members are elected annually as voting members of the Board, in proportion to faculty enrollment. Their primary purpose is the regulation and co-ordination of the policies and activities of the Association in the best interests of the students.

The Board directs the programmes of the Students finances; and is, in general, the sole representative of the Association before the Administration of Loyola, Association; implements its decisions; maintains its

before the general public, and before any party having business with students as a group. The non-voting members of the Board include the Chairman, Secretary, Senate Representative, Fr. President's Representative, Publicity Director, and the LMSA Executive (excepting the President and Vice-President for Internal Affairs).

### **LMSA Committees**

The workload undertaken by the LMSA each year is so enormous that committees are formed to bear a large portion of the burden. The committee chairmen are appointed by the LMSA Executive, which receives applications and interviews interested students in late spring. The members of the committees are then appointed by the chairman.

The types of committees range from those undertaking and organizing special events, to those in charge of a specialized political or administrative area of student government. A few examples of LMSA Committees would be Freshman Reception, Carnival, Leadership Conference, and Social Works.

### **Publications**

In 1966 the Board of Directors turned over publishing rights to the Board of Publications, whose primary function is to affirm and ensure free responsible student press.

The Board is composed of five voting members, with jurisdiction over the LOYOLA NEWS, the official student newspaper, the REVIEW, the student yearbook, AMPHORA, the literary magazine, the STUDENT HANDBOOK, the STUDENT DIRECTORY, and all other minor campus student publications.

### **Social Activities**

The chief social events of the year take shape in the Freshmen week, Home-coming Week, The Athletic and the Faculty dances, the Winter Carnival, and the LMSA and LMAA Awards Banquets.

## Societies and Organizations

There are over forty organizations on campus which vary in nature and scope from academic, ethnic, dramatic and musical to professional, political, recreational and special interest. A few examples of these organizations would be Commerce Society, Debating, and Political Science Students Association.

### Drama Society

The purpose of the Drama Society is to actively promote interest in drama on campus, and specifically to produce several productions during the academic year.

Past years' productions have included Steinbeck's *Of Mice and Men*, Ben Johnson's *Volpone*, and an adaptation of Shakespeare's *Julius Caesar* and James Hassinger's *Exit Pursued by a Bear*. In the last academic year, the Drama Society produced "A Country Wife" and "Miss Julie".

### Fraternities and Sororities

Loyola, at present, has three permanently recognized fraternities on campus; the Kappa Chi chapter of the international fraternity, Tau Kappa Epsilon; Theta Sigma and Sigma Delta Phi. There is presently one fraternity with probationary recognition Delta Epsilon Rho.

Fraternities, their establishment on campus, and their general direction are governed by an Inter-fraternity Council.

Loyola also has two sororities — Phi Delta and Lambda Pi Epsilon. There are hopes of an Inter-sorority Council being set up, to accommodate their needs.

### Loyola of Montreal Athletic Association

The primary purpose and responsibility of the Loyola of Montreal Athletic Association and that of its executive is assisting the Athletic Director in the promotion of the athletic programme. However, the success of any athletic programme depends upon the student's interest and participation in the variety of physical education activities available.

The LMAA executive consists of a president, a vice-president, a secretary-treasurer, and a publicity chairman. The LMAA Board includes the executive, the Intramural Athletic Council President, the Sports Store Manager, and a representative of each varsity sport. In an attempt to establish a closer union between the LMAA and the IAC, a constitutional amendment was passed recently whereby the LMAA Vice-President also holds the position of IAC President. In the past these two positions were held by separate individuals.



## UNIVERSITY OFFICER TRAINING UNITS

### THE REGULAR OFFICER TRAINING PLAN

#### Introduction

The Department of National Defence, through the Regular Officer Training Plan (ROTP), sponsors a programme of university education and leadership training for selected numbers of young men who have the potential to become officers in the Canadian Armed Forces.

Candidates with senior matriculation, junior matriculation, or who are university undergraduates taking suitable courses, are eligible to apply for enrolment as officer cadets in the component of their choice. The admission standards are high, but for those who qualify, the way is open to a challenging and rewarding career. Students who are selected for ROTP while attending university will be enrolled in the component of their choice while continuing their university studies.

Training in the ROTP is divided into two parts. Cadets attend a Canadian Services College or a University throughout the academic year and then go to a unit or training establishment of their component for training each summer.

#### Academic Training

In general terms, the courses which are needed in business and industry are also required in the Armed Forces.

The following are broad patterns:

Engineering — Civil, Mechanical, Electrical, Engineering Physics, Chemical.

Arts — General, Honours.

Science — General, Honours.

Commerce — General, Honours.

### Conditions of Service

Successful applicants will be enrolled as officer cadets in the Canadian Armed Forces and remain in that rank until completion of their academic training under ROTP. Thereafter, they will normally be commissioned and promoted to Lieutenant. Cadets are obliged to maintain good standing academically and in military training. A cadet who fails a year, or who lacks adequate standing in a subject from a previous year, loses his benefits. On the recommendation of his faculty, he may be permitted to repeat one year at his own expense and, if successful, be reinstated.

### Financial Assistance

To cover the cost of education, the Department of National Defence will pay tuition and all essential fees. Books and instruments needed for study are provided free at the Canadian Services Colleges. Students attending university under the ROTP are granted \$125.00 each academic year for the purchase of books and instruments.

Officer Cadets of the ROTP are paid at the rate of \$187.00 per month upon enrolment, increasing to \$192.00 per month after three years of continuous service.

Cadets attending a civilian university must individually arrange for their food and lodging. All Officer Cadets are assessed \$85.00 per month for rations and quarters while on summer service training.

An Officer Cadet is provided with uniforms and equipment for ROTP training. After graduation, on being commissioned as an officer, he will be entitled to an outfit allowance of \$450.00 for the purchase of uniforms and accoutrements.

### Admission Requirements

An applicant must have the following qualifications:

- a. **CITIZENSHIP**  
— be a Canadian citizen.
- b. **MARITAL STATUS**  
— be single and remain so until commissioned.

### c. MEDICAL

- be physically fit for enrolment in the component of his choice.

### d. AGE

- have reached his 16th birthday, but not his 21st birthday on the first of January of the year of entrance if applying with a senior matriculation; or his 20th birthday if applying with a junior matriculation. Consent of a parent or guardian is required if he is under 18 years of age.

### How to Apply

Application should be made by calling the Canadian Forces Recruiting Centre in Montreal; Telephone 866-2448.

## FEES

### SCHOLASTIC YEAR — 1968-1969

#### Regulations regarding payment of tuition and fees

**TUITION AND FEES MUST BE PAID AT THE TIME OF REGISTRATION.** However, a student may, in special cases of hardship and with the consent of the Bursar, pay Tuition and Fees in two instalments. The first instalment of Tuition and Fees covering the First term must be paid in full at registration. The second term fees to be paid in full on January 15th following. In such cases an instalment fee of \$10.00 will be charged. Evidence of Loyola Scholarship Awards or Loyola Bursaries must be submitted at time of registration. If a partial Loyola Scholarship or Bursary is awarded, the balance of Tuition and Fees must be paid at registration. Students who have applied for Provincial or Federal Government Bursaries must still settle their fees at registration in accordance with the above.

Students will not be considered registered and may not attend classes until the required fees have been paid or arrangements for payment made with the Bursar. Failure to make payments of tuition, fees or other amounts owed the College when due, or to arrange for such payments before their delinquent dates, is sufficient cause to bar the student from classes or examinations and to withhold diploma, scholastic certificate or transcript of record until the debt has been adjusted with the Bursar's Office.

Any damage done to any property of the College will be charged to the offender's account.

Drafts, cheques, money orders, etc., should be made payable at par to "Loyola College" and addressed to the Bursar, Loyola College, 7141 Sherbrooke Street West, Montreal 28, Quebec.

All accounts are subject to revision for adjustment of errors. The College also reserves the right to make changes without notice in the published scale of fees.



## GENERAL FEES — TUITION

### • ARTS (General Course) \*

All years ..... \$270.00 per half year \$540.00 per year

### • ARTS (with pre-Medical subjects) \*

All years ..... \$287.50 per half year \$575.00 per year

### • COMMUNICATION ARTS \*

All years ..... \$287.50 per half year \$575.00 per year

### • SCIENCE \*

All years ..... \$287.50 per half year \$575.00 per year

### • ENGINEERING \*

All years ..... \$297.50 per half year \$595.00 per year

### • COMMERCE \*

All years ..... \$270.00 per half year \$540.00 per year

\*The above fees were applicable to 1967-68 academic year and are subject to change for the 1968-69 academic year without notice.

N.B. — IN CASES WHERE CHEQUES ARE RETURNED TO THE COLLEGE MARKED "NOT SUFFICIENT FUNDS" THERE WILL BE A \$3.00 CHARGE.

— A 10% SURCHARGE WILL BE ADDED TO ALL UNPAID FEES AT END OF ACADEMIC YEAR.

**Tuition and Fees are payable in Canadian Funds.**

### Student activity

Student Administrative Council .....	\$17.00
Student Centre Building Fee .....	10.00
Loyola College Athletic Association .....	17.00
Total — (payable at registration) .....	\$44.00

### Special fees

#### Payable at registration

Tuition, extra subject (in addition to regular program) .....	\$100.00
Registration Fee (payable on first entrance only) .....	5.00

Late Registration Fee — for first day .....	10.00
Late Registration Fee — each succeeding day .....	3.00
Library Fee .....	5.00
Medical Fee .....	3.00
Accident Insurance-Compulsory .....	5.00
Graduation Fee — 4th year students .....	20.00

\* Lockers: Rental — \$5.00

Locks — \$2.00

\* To be paid in cash at Registration. College locks must be used. \$1.00 will be refunded at the Bookstore during month of May, only, for each lock in good condition, labelled with combination.

### Payable on date of each application

Supplemental examination, each .....	7.00
Special examinations .....	15.00
* Transcripts (Full) .....	1.00
* Transcripts (Partial) .....	.50
Parking Permit .....	20.00
Local examination privileges, each examination .....	15.00
* TRANSCRIPTS ARE RELEASED ONLY WHEN ALL OUTSTANDING BALANCES HAVE BEEN PAID.	

### Withdrawals and adjustments

ANY STUDENT WHO IS FORCED TO WITHDRAW FROM A COURSE OR FROM THE COLLEGE IS REQUIRED TO NOTIFY THE REGISTRAR IN PERSON OR IN WRITING. WITHDRAWAL NOTICES FOR PURPOSES OF REFUND WILL BE EFFECTIVE ON DATE OF RECEIPT BY THE REGISTRAR. NO TELEPHONE WITHDRAWALS WILL BE ACCEPTED.

If, after paying the fees, a student finds it impossible to continue at College, a refund of tuition only will be made from date of withdrawal on the following basis:

Registration date to September 30	A Refund of 7/8 of full year tuition
October 1 to October 31	A Refund of 6/8 of full year tuition
November 1 to November 30	A Refund of 5/8 of full year tuition
December 1 to January 15	A Refund of 4/8 of full year tuition
January 16 to January 31	A Refund of 3/8 of full year tuition
February 1 to February 28	A Refund of 2/8 of full year tuition
March 1 to March 31	A Refund of 1/8 of full year tuition
After March 31	No Refund.

## Residence

### Men

Hingston Hall, completed in 1963 and located on campus, is a modern edifice providing room and board for 306 students. This residence has two, four floor wings, centered by the main entrance and the common lounge. Student recreational facilities, study rooms, offices and chapel are located on the ground floor. Meals are served in an attractive refectory, cafeteria style. The aim of Hingston Residence is to promote spiritual, athletic, social and cultural ideals moulded into an ideal student educational atmosphere. To serve this end, academic and spiritual counsellors as well as proctors are available for student guidance.

Hingston Hall has 132 single rooms and 84 double rooms available. Room facilities include bed linen and blankets.

All Freshmen coming from outside the Montreal area will be obliged to live in Residence.

### Women

Langley Hall, the residence for women students, was opened for occupancy in the fall of 1967.

The residence, a three storey brick building, is located at 6900 Sherbrooke St. West, two blocks from the main campus. Attractive accommodations are available for approximately 125 women in the completely renovated and equipped building.

Single, double, and triple rooms are provided (no private baths). The rooms are completely furnished and the housing contract includes the rental of pillow, blankets and linen. Dining facilities do not exist in Langley Hall; all meals are served in the men's residence, Hingston Hall.

All women students under 21 years of age, who cannot live at home, are obliged to live in residence. Any exceptions to this regulation must be approved by the Dean of Women.



Parking facilities for resident students are the same as for other students on the campus. Parking permits may be obtained for a fee of \$20.00. Residence fees (exclusive of the Christmas holidays) are as follows:

Double Room .....	\$840.00
Double Room and Triple Room .....	840.00
(Women's Residence)	
Single Room .....	880.00
Damage and key fund .....	15.00
Residence activity fee .....	10.00
Room deposit which must accompany each application .....	50.00

The room deposit of \$50.00 will be deducted from the payment due on entrance. The money will be refunded if the student is not accepted or if the applicant cancels the room reservation by September 1, prior to registration.

RESIDENCE FEES MAY BE PAID IN TWO INSTALLMENTS. THE FIRST INSTALLMENT OF RESIDENCE FEES COVERING THE FIRST TERM MUST BE PAID IN FULL AT REGISTRATION.

THE SECOND TERM FEES MUST BE PAID IN FULL ON OR BEFORE JANUARY FIFTEENTH FOLLOWING.

Residence fees, paid in full, on or before September 1, will be subject to a discount of \$10.00.

No student will be permitted into residence before settlement of the account has been made in accordance with the above regulations.

The College reserves the right to make changes without notice in the published scale of fees, if, in the opinion of the College, circumstances so require.

Students will not be considered registered and may not attend classes until the required fees have been paid or arrangements for payment made with the Director of Residence. Failure to make payments of tuition, fees or other amounts owed the College when due, or to arrange for such payments before their delinquent dates, is sufficient cause to bar the student from classes or examinations and to withhold diploma, scholastic cer-

tificate or transcript of record until the debt has been adjusted with the Bursar's Office.

Application for men's residence should be made to the Manager of Hingston Hall, Loyola College, 7141 Sherbrooke West, Montreal 28, Quebec.

Application for women's residence should be made to the Dean of Women, Loyola College, 7141 Sherbrooke Street West, Montreal 28, Quebec. Application forms and further information may be obtained by writing to the above.

To ensure favourable consideration of your application, it is recommended that applications be submitted prior to August 15.

The College reserves the right to place the student in whatever rooms seem to be best in the interests of the men's programme as a whole, but careful consideration will be given to preferences expressed.

If a student withdraws from residence, a pro-rated refund less ten per cent will be made on room and board.

All residence fees are payable IN CANADIAN FUNDS, and cheques will be made payable to Loyola College. Residents are required to vacate their rooms within 24 hours of the last examination or graduation.

## FACILITIES

**BUILDINGS:** Loyola College is located on a fifty-acre site in the west end of Montreal. The structures of the College are: the Refectory Building (built in 1916); the Administration Building (1927); the Cafeteria and Physical Services Building (1923); the Chapel and Auditorium (1933); the Central Building (1947); the Drummond Science Building (1962); Hingston Hall (1963); the Georges P. Vanier Library (1964); the Physical Education Centre (1966); and buildings acquired to serve as Women's Residence (Langley Hall, 1967), and Faculty, Administration and Student Government offices (the Hackett and Cloran Buildings, 1965, and the Centennial Building, 1967).

The latest addition to the College is the W. F. X. Bryan Building (1967). It houses 17 lecture rooms, an auditorium, psychology and biology laboratories, and one of the best equipped Communication Arts Department in Canada, consisting of a combination T.V. studio and film studio, audio, visual and lighting control rooms, 2 radio studios, a photography studio, dark room, projection rooms, animation facilities and a multi-media room.

**LECTURE ROOMS:** The 41 lecture rooms have a total seating capacity of 2613. The 4 auditoria can seat 1265, the largest being the F. C. Smith Auditorium which seats 621.

**LABORATORIES:** About 65,000 square feet of floor space is devoted to science laboratories, shops, and offices. In addition, there are 9 engineering laboratories, 2 radio studios, a fully equipped television studio, a film studio, photographic facilities, and a computer room housing an I.B.M. 1620 Data Processing System.

**MAIN CHAPEL:** The College Chapel has a seating capacity of approximately 500.

**RESIDENCES:** The men's residence, Hingston Hall, provides accommodation for 300 male students; the women's residence, Langley Hall, can accommodate 127 female students.

**LIBRARIES:** The Georges P. Vanier Library provides students with one of the most modern and well-equipped

libraries in Greater Montreal. The building will have an ultimate capacity of 180,000 volumes, spread over three floors. There is a total seating accommodation for 600 students.

The Science Library which is situated in the Drummond Science Building serves the Biology, Chemistry, Engineering, Geotechnical Science, Mathematics, and Physics Departments.

The Library hours are as follows:

### VANIER LIBRARY

Monday to Friday	8:30 a.m. to 10:15 p.m.
Saturday	9:00 a.m. to 5:00 p.m.

### SCIENCE LIBRARY

Monday to Thursday	8:30 a.m. to 5:00 p.m.
	7:00 p.m. to 10:00 p.m.
Friday	8:30 a.m. to 5:00 p.m.

The libraries are closed on all legal holidays.



## INCOME AND NEEDS OF THE COLLEGE

The replacement value of Loyola College in buildings and educational equipment is in excess of thirty million dollars. The development plan for Loyola College to 1975 includes the recently completed W. X. Bryan Building, a student centre, additions to laboratory and classroom facilities, a faculty residence, an engineering building and residences for men and women.

**THE CAPITAL DEVELOPMENT PROGRAMME** Continual building needs call for continuing capital development support from individuals, business and industry throughout Canada. Current construction plans include added classroom and laboratory space, residence facilities, engineering building, and Student Centre.

**THE FACULTY ENDOWMENT FUND** The need to keep pace with the growing demands for increased faculty membership of the highest qualification can be met only if an endowment fund of substantial size is available to supplement current revenue and grant funds.

**THE VANIER LIBRARY ENDOWMENT FUND** Contributions provide for the growth of Library holdings and facilities at Loyola commensurate with student study and research needs.

**SCHOLARSHIP AND BURSARY ENDOWMENT** Loyola receives continuous requests from talented and worthy students for financial aid. Both Annual and Funded scholarships and bursaries are sought to meet this need.

**THE INSURANCE ENDOWMENT FUND** A relatively small Life Insurance premium payment each year out of current Income can provide a gift to Loyola of substantial size. The death of the donor will not interrupt the completion of the gift, nor will the estate of the donor be diminished for the rest of the family.

**THE ALUMNI ANNUAL FUND FOR LOYOLA** Annual giving by Alumni represents the largest single source of support to universities and colleges in North America. A regular yearly contribution to the Loyola Alumni Association supports a variety of aid programmes to Loyola College and her students. For full information and additional printed material please contact the Development Office.

## LOYOLA ALUMNI ASSOCIATION

The Loyola Alumni Association has as its object the advancement of the interest and the promotion of the welfare of Loyola College, of the Association and its members, and the maintenance of the fellowship developed, during academic life through social, spiritual and cultural activities.

During the course of the year, the Loyola Alumni Association sponsors the Golf Tournament, 'Home-coming' Dinner-Dance, Oyster Party, Memorial Mass, Senior Class Reception, a Cultural Event and an Alumni Sports Night. It also sponsors the selection and presentation of the Loyola Medal to outstanding Canadians. The Loyola Alumni Association publishes a quarterly magazine, the Loyola Alumnus, and offers the services of its office to aid individual classes in organizing and preparing Class Reunions.

A General Meeting is held every year, generally at the College. At this meeting officers for the coming year are elected and all matters of general business transacted. The Loyola Alumni Association sponsors the Loyola Alumni Student Loan Fund, the Post-Graduate Bursaries, the Under-Graduate Bursaries and the Loyola College Endowment Fund.

The office of the Director of Alumni Affairs is located at 7270 Sherbrooke Street West, Second Floor.

## index

- |           |                                                   |           |                                                              |
|-----------|---------------------------------------------------|-----------|--------------------------------------------------------------|
| 9         | ACADEMIC CALENDAR                                 | 92        | BACHELOR OF SCIENCE (ENGINEERING), PROGRAMMES AND CURRICULUM |
| 43        | ACADEMIC REGULATIONS                              | 64        | BIOLOGY                                                      |
| 46        | ACADEMIC STATUS                                   | 64        | BIOLOGY, MAJOR IN                                            |
| 211       | ACCIDENT AND SICKNESS INSURANCE                   | 64        | BIOLOGY, CONCENTRATION IN                                    |
| 60        | ACCOUNTANCY                                       | 13        | BOARD OF GOVERNORS                                           |
| 60        | ACCOUNTANCY, MAJOR IN                             | 13        | BOARD OF TRUSTEES                                            |
| 15        | ADMINISTRATIVE OFFICERS                           | 198       | BURSARIES                                                    |
| 15        | ADMINISTRATIVE OFFICES                            | 68        | BUSINESS ADMINISTRATION                                      |
| 39        | ADMISSION REGULATIONS                             | 68        | BUSINESS ADMINISTRATION, MAJOR IN                            |
| 39        | ADMISSION TO FIRST YEAR                           |           |                                                              |
| 40        | ADMISSION TO SECOND YEAR                          | 9         | CALENDAR OF EVENTS                                           |
| 40        | ADMISSION AS TRANSFER STUDENT                     | 44        | CATEGORIES OF STUDENTS                                       |
| 94        | ADMISSION TO FACULTY OF ENGINEERING               | 44        | CHANGE OF REGISTRATION                                       |
| 48 - 53 - |                                                   | 214 - 230 | CHAPEL                                                       |
| 56        | ADMISSION TO HONOURS STUDIES                      | 210 - 214 | CHAPLAIN                                                     |
| 39        | ADMISSION AS MATURE STUDENT                       | 37        | CHARTERED ACCOUNTANTS, INSTITUTE OF                          |
| 40        | ADVANCED STANDING REGULATIONS                     | 37        | CHEMICAL INSTITUTE OF CANADA                                 |
| 62        | AFRICAN STUDIES                                   | 77        | CHEMISTRY                                                    |
| 38        | AIM OF LOYOLA COLLEGE                             | 77        | CHEMISTRY, HONOURS IN                                        |
| 234       | ALUMNI ASSOCIATION                                | 77        | CHEMISTRY, MAJOR IN                                          |
| 40        | APPLICATIONS                                      | 77        | CHEMISTRY, CONCENTRATION IN                                  |
| 48        | ARTS, FACULTY OF                                  | 96        | CHEMICAL ENGINEERING                                         |
| 213       | ATHLETICS                                         | 97        | CIVIL ENGINEERING                                            |
| 45        | ATTENDANCE AT LECTURES, LABORATORIES AND SEMINARS | 76        | CLASSICS                                                     |
| 230       | AUDITORIA                                         | 76        | CLASSICS, HONOURS IN                                         |
| 49        | BACHELOR OF ARTS, PROGRAMMES AND CURRICULUM       | 76        | CLASSICS, MAJOR IN                                           |
| 54        | BACHELOR OF COMMERCE, PROGRAMMES AND CURRICULUM   | 44        | CLASSIFICATION OF STUDENTS                                   |
| 57        | BACHELOR OF SCIENCE, PROGRAMMES AND CURRICULUM    | 212       | COLLEGE RULES AND REGULATION                                 |
|           |                                                   | 53        | COMMERCE, FACULTY OF                                         |
|           |                                                   | 32        | COMMITTEES:                                                  |



## index

- 32 APPOINTMENTS, BANK AND TENURE  
 32 ACADEMIC STANDING  
 32 ADMISSIONS  
 33 CURRICULUM  
 35 EVENING DIVISION  
 35 GRADUATE AWARDS AND PROGRAMMES  
 34 LIBRARY BOARD  
 34 PROSPECTUS  
 33 SCHEDULING OF LECTURES AND EXAMINATIONS  
 35 SCHOLARSHIP  
 34 STUDENT LIFE  
 34 VISITING LECTURERS, SPECIAL SPEAKERS, ETC.  
 80 COMMUNICATION ARTS  
 80 COMMUNICATION ARTS, MAJOR IN  
 87 COMPUTING CENTRE  
 42 COUNSELLING, ACADEMIC  
 42 COUNSELLING, PERSONAL  
 44 COURSE CHANGES  
 43 COURSE LOAD  
 48 CURRICULUM, ARTS  
 53 CURRICULUM, COMMERCE  
 92 CURRICULUM, ENGINEERING  
 55 CURRICULUM, SCIENCE  
 44 - 45 DEGREES  
 65 DENTISTRY, PREPARATION FOR  
 218 DRAMA SOCIETY  
 88 ECONOMICS  
 88 ECONOMICS, HONOURS IN  
 88 ECONOMICS, MAJOR IN  
 96 ENGINEERING, CHEMICAL  
 97 ENGINEERING, CIVIL  
 98 ENGINEERING, ELECTRICAL  
 92 ENGINEERING, FACULTY OF  
 100 ENGINEERING, MECHANICAL  
 110 ENGLISH  
 110 ENGLISH, HONOURS IN  
 110 ENGLISH, MAJOR IN  
 37 EVENING DIVISION  
 45 EXAMINATIONS  
 230 FACILITIES  
 17 FACULTY, LIST OF  
 16 FACULTY ASSOCIATION  
 15 FACULTY DEANS  
 48 FACULTY OF ARTS, PROGRAMMES AND CURRICULUM  
 53 FACULTY OF COMMERCE, PROGRAMMES AND CURRICULUM  
 55 FACULTY OF SCIENCE, PROGRAMMES AND CURRICULUM  
 92 FACULTY OF SCIENCE (ENGINEERING), PROGRAMMES AND CURRICULUM  
 46 FAILED YEAR, REGULATIONS  
 46 FAILURES, DEFINITION OF  
 223 - 224 FEES  
 221 FINANCIAL AID  
 122 FRENCH STUDIES  
 123 FRENCH STUDIES, HONOURS IN  
 123 FRENCH STUDIES, MAJOR IN  
 59 GENERAL PROGRAMMES — FACULTY OF SCIENCE  
 129 GEOTECHNICAL SCIENCE

## index

- 129 GEOTECHNICAL SCIENCE, MAJOR IN  
 129 GEOTECHNICAL SCIENCE, CONCENTRATION IN  
 146 GERMAN  
 145 GERMAN, MAJOR IN  
 45 GRADING SCALE  
 45 GRADING SYSTEM  
 44 GRADUATION, REGISTRATION FOR  
 42 GUIDANCE CENTRE  
 213 GYMNASIUM  
 211 HEALTH SERVICES  
 135 HISTORY  
 135 HISTORY, HONOURS IN  
 135 HISTORY, MAJOR IN  
 36 HISTORY OF LOYOLA COLLEGE  
 50 HONOURS PROGRAMMES — FACULTY OF ARTS  
 54 HONOURS PROGRAMMES — FACULTY OF COMMERCE  
 58 HONOURS PROGRAMMES — FACULTY OF SCIENCE  
 227 HOUSING  
 232 INCOME AND NEEDS OF THE COLLEGE  
 37 INSTITUTE OF CHARTERED ACCOUNTANTS  
 211 INSURANCE, ACCIDENT AND SICKNESS  
 147 ITALIAN  
 230 LABORATORIES  
 230 LECTURE ROOMS  
 43 LENGTH OF PROGRAMMES  
 230 LIBRARIES  
 143 LINGUISTICS  
 202 LOAN FUNDS  
 49 MAJOR PROGRAMMES, FACULTY OF ARTS  
 54 MAJOR PROGRAMMES, FACULTY OF COMMERCE  
 57 MAJOR PROGRAMMES, FACULTY OF SCIENCE  
 149 MATHEMATICS  
 149 MATHEMATICS, HONOURS IN  
 149 MATHEMATICS, MAJOR IN  
 150 MATHEMATICS, CONCENTRATION IN  
 39 MATURE STUDENT  
 100 MECHANICAL ENGINEERING  
 65 MEDICINE, PREPARATION FOR  
 14 MEMBERS OF SENATE  
 143 MODERN LANGUAGES  
 148 MODERN LANGUAGE MAJOR IN  
 40 OVERSEAS STUDENTS  
 44 PARTIAL COURSE STUDENTS  
 223 PAYMENT OF FEES, POLICY  
 42 PERSONAL COUNSELLING  
 158 PHILOSOPHY  
 158 PHILOSOPHY, HONOURS IN  
 158 PHILOSOPHY, MAJOR IN  
 164 PHYSICS  
 164 PHYSICS, HONOURS IN  
 164 PHYSICS, MAJOR IN  
 164 PHYSICS, CONCENTRATION IN  
 211 PLACEMENT SERVICE  
 170 POLITICAL SCIENCE  
 170 POLITICAL SCIENCE, HONOURS IN

# index

- |           |                                        |     |                                      |
|-----------|----------------------------------------|-----|--------------------------------------|
| 170       | POLITICAL SCIENCE, MAJOR IN            | 47  | STUDENT RIGHTS,<br>RECOGNITION OF    |
| 206       | PRIZES                                 | 209 | STUDENT SERVICES                     |
| 46        | PROMOTION                              | 42  | TESTING CENTRE                       |
| 176       | PSYCHOLOGY                             | 188 | THEOLOGY                             |
| 176       | PSYCHOLOGY, MAJOR IN                   | 188 | THEOLOGY, HONOURS IN                 |
| 212 - 217 | PUBLICATIONS, STUDENT                  | 188 | THEOLOGY, MAJOR IN                   |
| 43        | REGISTRATION PROCEDURE                 | 220 | UNIVERSITY OFFICER<br>TRAINING UNITS |
| 44        | REGISTRATION FOR GRADUATION            | 48  | WITHDRAWALS                          |
| 212       | REGULATIONS, COLLEGE<br>RULES AND      | 223 | WITHDRAWAL ADJUSTMENTS               |
| 214       | RELIGIOUS ACTIVITIES                   |     |                                      |
| 43        | REPETITION OF COURSES                  |     |                                      |
| 46        | REPORTS                                |     |                                      |
| 47        | REREADING OF EXAMINATIONS              |     |                                      |
| 227 - 229 | RESIDENCE REQUIREMENTS                 |     |                                      |
| 227 - 229 | RESIDENCES                             |     |                                      |
| 212       | RULES — COLLEGE<br>REGULATION AND      |     |                                      |
| 148       | RUSSIAN                                |     |                                      |
| 193       | SCHOLARSHIPS                           |     |                                      |
| 55        | SCIENCE, FACULTY OF                    |     |                                      |
| 14        | SENATE, MEMBERS OF                     |     |                                      |
| 180       | SOCIOLOGY                              |     |                                      |
| 181       | SOCIOLOGY, MAJOR IN                    |     |                                      |
| 144       | SPANISH                                |     |                                      |
| 144       | SPANISH, MAJOR IN                      |     |                                      |
| 47        | SPECIAL EXAMINATIONS                   |     |                                      |
| 217       | STUDENT EXTRA-CURRICULAR<br>ACTIVITIES |     |                                      |
| 215       | STUDENT GOVERNMENT                     |     |                                      |
| 42        | STUDENT GUIDANCE SERVICES              |     |                                      |
| 212 - 217 | STUDENT PUBLICATIONS                   |     |                                      |